

Palindromic-Type Expressions and Patterns

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Abstract

*In this paper, we shall work with **palindromic-type expressions**. The **palindromic-type expressions** are not palindromes, but by use of addition and/or multiplication they seem like palindromes. These operations are applied in such a way that, when we remove the operations, they become palindromes. Combining operations of addition and multiplications lead us to a **palindromic-type expressions**. The study is done in different situations. The final sum is separated in two categories: one as **palindromic numbers** and another as **non palindromic numbers**. Some interesting patterns are also established.*

Contents

1 Introduction	2
1.1 Non Repeated and Same Length Palindromic-Type Expression	2
1.2 Equalities in Palindromic-Type Expressions	3
2 Patterns in Palindromic-Type Expressions	4
3 Specific Digits Palindromic-Type Expressions without Zero	8
3.1 Digits 1 and 2	8
3.2 Digits 1, 2 and 3	8
3.3 Digits 1, 2, 3 and 4	8
3.4 Digits 1, 2, 3, 4 and 5	10
3.4.1 Palindromic Sum	10
3.4.2 Non Palindromic Sum	11
4 Specific Digits Palindromic-Type Expressions with Zero	13
4.1 Digits 0 and 1	13
4.2 Digits 0, 1 and 2	13
4.3 Digits 0, 1, 2 and 3	16
4.4 Digits 0, 1, 2, 3 and 4	23
4.5 Digits 0, 1, 2, 3, 4 and 5	47
5 Palindromic-Type Numbers with Square	47
5.1 Palindromic Sum	47
5.2 Non Palindromic Sum	48
6 Same Digits Multiplicative Factors	50
6.1 Palindromic Sum	50
6.2 Non Palindromic Sum	54

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7 Palindromic Multiplicative Factors	77
7.1 Palindromic Sum	77
7.1.1 2-Digits Internal Product	77
7.1.2 3-Digits Internal Product	79
7.1.3 4-Digits Internal Product	80
7.1.4 5-Digits Internal Product	82
7.2 Non Palindromic Sum	83
7.2.1 2-Digits Internal Product	83
7.2.2 3-Digits Internal Product	88
7.2.3 4-Digits Internal Product	99
7.2.4 5-Digits Internal Product	109

1 Introduction

A palindromic number is the number that remains the same when its digits are reversed, for example, 121, 3333, 161161, etc. In [6, 7], author worked on palindromic patterns and wrote them in terms of single digit "a". We shall define **palindromic-type expressions**, i.e., the numbers are not palindromes but appears like palindromes. They are separated by operations of additions and/or multiplications, for example,

- 1343×3421
- 1225×5221
- $16 + 61$
- $1825 + 5281$, etc.

When we remove the operation sign, they becomes palindromes. These types of numbers we call as **palindromic-type expressions**. Some studies in this direction can be seen in [4]. Let us separate these numbers in two categories:

- **Type 1:**

$$1596 \times 6951 = 2793 \times 3972 := 11093796.$$

$$616248 \times 842616 = 645408 \times 804546 := 519260424768.$$

- **Type 2:**

$$234 \times 111 + 111 \times 432 = 25974 + 47952 := 73926.$$

$$10011 \times 11 + 11 \times 11001 = 110121 + 121011 := 231132.$$

The difference is that the first type is only with **multiplication**, and second type is with **addition** and **multiplication**. The work on first type can be seen in author's work [10, 12]. This work is concentrated only on **Type 2**, i.e., **palindromic-type expressions** with **addition** and **multiplication**.

For study in this direction in different situations refer author's work [6, 7, 8]. From historical point of view refer [1, 2, 3, 5]. For summary of all work of author refer [11]. This work revised author's previous work [9].

1.1 Non Repeated and Same Length Palindromic-Type Expression

Below are examples of **palindromic-type expressions**, where each digit appears once and multiplicative factors are of same number of digits.

$$12 \times 21 + 21 \times 12 = 252 + 252$$

$$12 \times 12 + 21 \times 21 = 144 + 441$$

$$\begin{aligned}
102 \times 210 + 201 \times 012 &= 21420 + 02412 \\
201 \times 102 + 201 \times 102 &= 20502 + 20502 \\
102 \times 012 + 210 \times 201 &= 01224 + 42210 \\
102 \times 102 + 201 \times 201 &= 10404 + 40401
\end{aligned}$$

$$\begin{aligned}
2031 \times 1032 + 2301 \times 1302 &= 2095992 + 2995902 \\
2103 \times 1203 + 3021 \times 3012 &= 2529909 + 9099252 \\
2013 \times 1023 + 3201 \times 3102 &= 2059299 + 9929502
\end{aligned}$$

We observe that each multiplicative factor uses the same digits with same width without repetitions. This kind of numbers can be seen in section 6 .

1.2 Equalities in Palindromic-Type Expressions

Below are two examples **palindromic-type expressions**, where final sum in each case is same. In another words, the same number can be written in different ways.

$$\begin{aligned}
\mathbf{4448444} &:= 1043 \times 1001 + 1001 \times 3401 = 1044043 + 3404401 \\
&:= 1111 \times 1003 + 3001 \times 1111 = 1114333 + 3334111 \\
&:= 1133 \times 1001 + 1001 \times 3311 = 1134133 + 3314311 \\
&:= 1223 \times 1001 + 1001 \times 3221 = 1224223 + 3224221 \\
&:= 1313 \times 1001 + 1001 \times 3131 = 1314313 + 3134131 \\
&:= 1403 \times 1001 + 1001 \times 3041 = 1404403 + 3044041 \\
&:= 2002 \times 1021 + 1201 \times 2002 = 2044042 + 2404402 \\
&:= 2002 \times 1111 + 1111 \times 2002 = 2224222 + 2224222 \\
&:= 2042 \times 1001 + 1001 \times 2402 = 2044042 + 2404402 \\
&:= 2132 \times 1001 + 1001 \times 2312 = 2134132 + 2314312 \\
&:= 2222 \times 1001 + 1001 \times 2222 = 2224222 + 2224222.
\end{aligned}$$

$$\begin{aligned}
\mathbf{440484044} &:= 10043 \times 10001 + 10001 \times 34001 = 100440043 + 340044001 \\
&:= 11011 \times 10003 + 30001 \times 11011 = 110143033 + 330341011 \\
&:= 11033 \times 10001 + 10001 \times 33011 = 110341033 + 330143011 \\
&:= 12023 \times 10001 + 10001 \times 32021 = 120242023 + 320242021 \\
&:= 13013 \times 10001 + 10001 \times 31031 = 130143013 + 310341031 \\
&:= 14003 \times 10001 + 10001 \times 30041 = 140044003 + 300440041 \\
&:= 20002 \times 10021 + 12001 \times 20002 = 200440042 + 240044002 \\
&:= 20002 \times 11011 + 11011 \times 20002 = 220242022 + 220242022 \\
&:= 20042 \times 10001 + 10001 \times 24002 = 200440042 + 240044002 \\
&:= 21032 \times 10001 + 10001 \times 23012 = 210341032 + 230143012 \\
&:= 22022 \times 10001 + 10001 \times 22022 = 220242022 + 220242022.
\end{aligned}$$

We observe from the above two examples that there are 11 **palindromic-type** expressions giving same final sum, and the sum is also a palindrome. These two examples are with digits 0, 1, 2 and 4. Still, we are not sure whether there exists bigger chains of this kind. This kind of study shall be dealt elsewhere.

2 Patterns in Palindromic-Type Expressions

Below are some examples of patterns in **palindromic-type expressions**. Initial examples are with square numbers:

1.

$$11^2 + 11^2 := 121 + 121$$

$$110^2 + 011^2 := 12100 + 00121$$

$$1100^2 + 0011^2 := 1210000 + 0000121.$$
2.

$$12^2 + 21^2 := 144 + 441$$

$$102^2 + 201^2 := 10404 + 40401$$

$$1002^2 + 2001^2 := 1004004 + 4004001.$$
3.

$$13^2 + 31^2 := 169 + 961$$

$$103^2 + 301^2 := 10609 + 90601$$

$$1003^2 + 3001^2 := 1006009 + 9006001.$$
4.

$$101^2 + 101^2 := 10201 + 10201$$

$$1011^2 + 1101^2 := 1022121 + 1212201$$

$$10011^2 + 11001^2 := 100220121 + 121022001.$$
5.

$$11 \times 11 + 11 \times 11 := 121 + 121$$

$$111 \times 11 + 11 \times 111 := 1221 + 1221$$

$$1111 \times 11 + 11 \times 1111 := 12221 + 12221.$$
6.

$$102 \times 11 + 11 \times 201 := 1122 + 2211$$

$$1002 \times 111 + 111 \times 2001 := 111222 + 222111$$

$$10002 \times 1111 + 1111 \times 20001 := 11112222 + 22221111.$$
7.

$$102 \times 11 + 11 \times 201 := 1122 + 2211$$

$$1102 \times 11 + 11 \times 2011 := 12122 + 22121$$

$$11002 \times 111 + 111 \times 20011 := 1221222 + 2221221.$$
8.

$$12 \times 12 + 21 \times 21 := 144 + 441.$$

$$122 \times 12 + 21 \times 221 := 1464 + 4641.$$

$$1222 \times 12 + 21 \times 2221 := 14664 + 46641.$$
9.

$$12 \times 21 + 12 \times 21 := 252 + 252.$$

$$122 \times 21 + 12 \times 221 := 2562 + 2652.$$

$$1222 \times 21 + 12 \times 2221 := 25662 + 26652.$$
10.

$$10011 \times 101 + 101 \times 11001 := 1011111 + 1111101$$

$$100011 \times 101 + 101 \times 110001 := 10101111 + 11110101$$

$$1000011 \times 101 + 101 \times 1100001 := 101001111 + 111100101.$$

• Patterns with Number 1089

1.

$$11 \times 18 + 81 \times 11 = 198 + 891 := \mathbf{1089}$$

$$111 \times 18 + 81 \times 111 = 1998 + 8991 := \mathbf{10989}$$

$$1111 \times 18 + 81 \times 1111 = 19998 + 89991 := \mathbf{109989}$$
2.

$$11 \times 27 + 72 \times 11 = 297 + 792 := \mathbf{1089}$$

$$111 \times 27 + 72 \times 111 = 2997 + 7992 := \mathbf{10989}$$

$$1111 \times 27 + 72 \times 1111 = 29997 + 79992 := \mathbf{109989}$$
3.

$$11 \times 36 + 63 \times 11 = 396 + 693 := \mathbf{1089}$$

$$111 \times 36 + 63 \times 111 = 3996 + 6993 := \mathbf{10989}$$

$$1111 \times 36 + 63 \times 1111 = 39996 + 69993 := \mathbf{109989}$$
4.

$$33 \times 12 + 21 \times 33 = 396 + 693 := \mathbf{1089}$$

$$333 \times 12 + 21 \times 333 = 3996 + 6993 := \mathbf{10989}$$

$$3333 \times 12 + 21 \times 3333 = 39996 + 69993 := \mathbf{109989}$$
5.

$$11 \times 45 + 54 \times 11 = 495 + 594 := \mathbf{1089}$$

$$111 \times 45 + 54 \times 111 = 4995 + 5994 := \mathbf{10989}$$

$$1111 \times 45 + 54 \times 1111 = 49995 + 59994 := \mathbf{109989}$$
6.

$$99 \times 55 + 55 \times 99 = 5445 + 5445 := \mathbf{10890}$$

$$99 \times 555 + 555 \times 99 = 54945 + 54945 := \mathbf{109890}$$

$$99 \times 5555 + 5555 \times 99 = 549945 + 549945 := \mathbf{1099890}$$

7.

$$\begin{aligned}
 99 \times 55 + 55 \times 99 &= 5445 + 5445 := \mathbf{10890} \\
 999 \times 55 + 55 \times 999 &= 54945 + 54945 := \mathbf{109890} \\
 9999 \times 55 + 55 \times 9999 &= 549945 + 549945 := \mathbf{1099890}
 \end{aligned}$$

- **Patterns with Numbers 0, 1, 2 and 4**

1.

$$\begin{aligned}
 101 \times 22 + 22 \times 101 &= 2222 + 2222 := \mathbf{4444} \\
 202 \times 11 + 11 \times 202 &= 2222 + 2222 := \mathbf{4444}
 \end{aligned}$$

$$\begin{aligned}
 1001 \times 222 + 222 \times 1001 &= 222222 + 222222 := \mathbf{444444} \\
 2002 \times 111 + 111 \times 2002 &= 222222 + 222222 := \mathbf{444444}
 \end{aligned}$$

$$\begin{aligned}
 10001 \times 2222 + 2222 \times 10001 &= 22222222 + 22222222 := \mathbf{44444444} \\
 20002 \times 1111 + 1111 \times 20002 &= 22222222 + 22222222 := \mathbf{44444444}
 \end{aligned}$$

2.

$$\begin{aligned}
 101 \times 22 + 22 \times 101 &= 2222 + 2222 := \mathbf{4444} \\
 202 \times 11 + 11 \times 202 &= 2222 + 2222 := \mathbf{4444}
 \end{aligned}$$

$$\begin{aligned}
 10101 \times 22 + 22 \times 10101 &= 222222 + 222222 := \mathbf{444444} \\
 20202 \times 11 + 11 \times 20202 &= 222222 + 222222 := \mathbf{444444}
 \end{aligned}$$

$$\begin{aligned}
 1010101 \times 22 + 22 \times 1010101 &= 22222222 + 22222222 := \mathbf{44444444} \\
 2020202 \times 11 + 11 \times 2020202 &= 22222222 + 22222222 := \mathbf{44444444}
 \end{aligned}$$

3.

$$\begin{aligned}
 101 \times 22 + 22 \times 101 &= 2222 + 2222 := \mathbf{4444} \\
 202 \times 11 + 11 \times 202 &= 2222 + 2222 := \mathbf{4444}
 \end{aligned}$$

$$\begin{aligned}
 1001 \times 22 + 22 \times 1001 &= 22022 + 22022 := \mathbf{44044} \\
 2002 \times 11 + 11 \times 2002 &= 22022 + 22022 := \mathbf{44044}
 \end{aligned}$$

$$\begin{aligned}
 10001 \times 22 + 22 \times 10001 &= 220022 + 220022 := \mathbf{440044} \\
 20002 \times 11 + 11 \times 20002 &= 220022 + 220022 := \mathbf{440044}
 \end{aligned}$$

4.

$$\begin{aligned}
 101 \times 22 + 22 \times 101 &= 2222 + 2222 := \mathbf{4444} \\
 202 \times 11 + 11 \times 202 &= 2222 + 2222 := \mathbf{4444}
 \end{aligned}$$

$$\begin{aligned}
 10001 \times 222 + 222 \times 10001 &= 2220222 + 2220222 := \mathbf{4440444} \\
 20002 \times 111 + 111 \times 20002 &= 2220222 + 2220222 := \mathbf{4440444}
 \end{aligned}$$

$$\begin{aligned}
 10001 \times 202 + 202 \times 10001 &= 2020202 + 2020202 := \mathbf{4040404} \\
 20002 \times 101 + 101 \times 20002 &= 2020202 + 2020202 := \mathbf{4040404}
 \end{aligned}$$

5.

$$1001 \times 202 + 202 \times 1001 = 202202 + 202202 := \mathbf{404404}$$

$$2002 \times 101 + 101 \times 2002 = 202202 + 202202 := \mathbf{404404}$$

$$10101 \times 2002 + 2002 \times 10101 = 20222202 + 20222202 := \mathbf{40444404}$$

$$20202 \times 1001 + 1001 \times 20202 = 20222202 + 20222202 := \mathbf{40444404}$$

• Patterns with Numbers 0, 1, 3 and 4

1.

$$101 \times 13 + 31 \times 101 = 1313 + 3131 := \mathbf{4444}$$

$$103 \times 11 + 11 \times 301 = 1133 + 3311 := \mathbf{4444}$$

2.

$$1001 \times 103 + 301 \times 1001 = 103103 + 301301 := \mathbf{404404}$$

$$1003 \times 101 + 101 \times 3001 = 101303 + 303101 := \mathbf{404404}$$

3.

$$10001 \times 103 + 301 \times 10001 = 1030103 + 3010301 := \mathbf{4040404}$$

$$10003 \times 101 + 101 \times 30001 = 1010303 + 3030101 := \mathbf{4040404}$$

4.

$$10001 \times 1003 + 3001 \times 10001 = 10031003 + 30013001 := \mathbf{40044004}$$

$$10003 \times 1001 + 1001 \times 30001 = 10013003 + 30031001 := \mathbf{40044004}$$

• Patterns with Numbers 0, 1, 2, 3 and 4

1.

$$101 \times 13 + 31 \times 101 = 1313 + 3131 := \mathbf{4444}$$

$$103 \times 11 + 11 \times 301 = 1133 + 3311 := \mathbf{4444}$$

2.

$$1001 \times 123 + 321 \times 1001 = 123123 + 321321 := \mathbf{444444}$$

$$1003 \times 111 + 111 \times 3001 = 111333 + 333111 := \mathbf{444444}$$

3.

$$10001 \times 1223 + 3221 \times 10001 = 12231223 + 32213221 := \mathbf{44444444}$$

$$10003 \times 1111 + 1111 \times 30001 = 11113333 + 33331111 := \mathbf{44444444}$$

Patterns with Numbers 0, 1, 2, 4 and 8

1.

$$101 \times 44 + 44 \times 101 = 4444 + 4444 := \mathbf{8888}$$

$$202 \times 22 + 22 \times 202 = 4444 + 4444 := \mathbf{8888}$$

$$404 \times 11 + 11 \times 404 = 4444 + 4444 := \mathbf{8888}$$

$$1001 \times 444 + 444 \times 1001 = 444444 + 444444 := \mathbf{888888}$$

$$2002 \times 222 + 222 \times 2002 = 444444 + 444444 := \mathbf{888888}$$

$$4004 \times 111 + 111 \times 4004 = 444444 + 444444 := \mathbf{888888}$$

$$10001 \times 4444 + 4444 \times 10001 = 44444444 + 44444444 := \mathbf{88888888}$$

$$20002 \times 2222 + 2222 \times 20002 = 44444444 + 44444444 := \mathbf{88888888}$$

$$40004 \times 1111 + 1111 \times 40004 = 44444444 + 44444444 := \mathbf{88888888}$$

2.

$$1001 \times 44 + 44 \times 1001 = 44044 + 44044 := \mathbf{88088}$$

$$2002 \times 22 + 22 \times 2002 = 44044 + 44044 := \mathbf{88088}$$

$$4004 \times 11 + 11 \times 4004 = 44044 + 44044 := \mathbf{88088}$$

$$10001 \times 404 + 404 \times 10001 = 4040404 + 4040404 := \mathbf{8080808}$$

$$20002 \times 202 + 202 \times 20002 = 4040404 + 4040404 := \mathbf{8080808}$$

$$40004 \times 101 + 101 \times 40004 = 4040404 + 4040404 := \mathbf{8080808}$$

$$10001 \times 4004 + 4004 \times 10001 = 40044004 + 40044004 := \mathbf{80088008}$$

$$20002 \times 2002 + 2002 \times 20002 = 40044004 + 40044004 := \mathbf{80088008}$$

$$40004 \times 1001 + 1001 \times 40004 = 40044004 + 40044004 := \mathbf{80088008}$$

3.

$$101 \times 44 + 44 \times 101 = 4444 + 4444 := \mathbf{8888}$$

$$202 \times 22 + 22 \times 202 = 4444 + 4444 := \mathbf{8888}$$

$$404 \times 11 + 11 \times 404 = 4444 + 4444 := \mathbf{8888}$$

$$10101 \times 44 + 44 \times 10101 = 444444 + 444444 := \mathbf{888888}$$

$$20202 \times 22 + 22 \times 20202 = 444444 + 444444 := \mathbf{888888}$$

$$40404 \times 11 + 11 \times 40404 = 444444 + 444444 := \mathbf{888888}$$

4.

$$1001 \times 44 + 44 \times 1001 = 44044 + 44044 := \mathbf{88088}$$

$$2002 \times 22 + 22 \times 2002 = 44044 + 44044 := \mathbf{88088}$$

$$4004 \times 11 + 11 \times 4004 = 44044 + 44044 := \mathbf{88088}$$

$$10001 \times 444 + 444 \times 10001 = 4440444 + 4440444 := \mathbf{8880888}$$

$$20002 \times 222 + 222 \times 20002 = 4440444 + 4440444 := \mathbf{8880888}$$

$$40004 \times 111 + 111 \times 40004 = 4440444 + 4440444 := \mathbf{8880888}$$

From the examples given in sections below, we can construct much more patterns for **palindromic-type expressions**. These sections are written with particular categories. In some cases, numbers appearing in one section also appears in another.

3 Specific Digits Palindromic-Type Expressions without Zero

In this section we shall work with **palindromic-type expressions** with specific digits. For example, with numbers {1,2}, {1,2,3}, {1,2,3,4}, etc. Interestingly, up to digits {1,2,3,4} the final sum is always palindrome. When we work with 5 digits {1,2,3,4,5}, the final sum is not necessarily palindrome. The total sum values are not in the digit's representations. Examples in each case are given separately in the following subsections:

3.1 Digits 1 and 2

In this case there are very few examples forming a good pattern:

$$\begin{aligned} 11 \times 11 + 11 \times 11 &= 121 + 121 := \mathbf{242} \\ 111 \times 11 + 11 \times 111 &= 1221 + 1221 := \mathbf{2442} \\ 1111 \times 11 + 11 \times 1111 &= 12221 + 12221 := \mathbf{24442} \\ 11111 \times 11 + 11 \times 11111 &= 122221 + 122221 := \mathbf{244442} \end{aligned}$$

3.2 Digits 1, 2 and 3

Examples below are **palindromic-type expressions** with two digits 1, 2 and 3 on both sides of the expressions, except the sum. In this case we have very few numbers.

$$\begin{aligned} 12 \times 11 + 11 \times 21 &= 132 + 231 := \mathbf{363} & 11211 \times 11 + 11 \times 11211 &= 123321 + 123321 := \mathbf{246642} \\ 21 \times 11 + 11 \times 12 &= 231 + 132 := \mathbf{363} & 11121 \times 11 + 11 \times 12111 &= 122331 + 133221 := \mathbf{255552} \\ & & 12121 \times 11 + 11 \times 12121 &= 133331 + 133331 := \mathbf{266662} \\ 121 \times 11 + 11 \times 121 &= 1331 + 1331 := \mathbf{2662} & 11112 \times 11 + 11 \times 21111 &= 122232 + 232221 := \mathbf{354453} \\ 112 \times 11 + 11 \times 211 &= 1232 + 2321 := \mathbf{3553} & & \\ 111 \times 12 + 21 \times 111 &= 1332 + 2331 := \mathbf{3663} & 11212 \times 11 + 11 \times 21211 &= 123332 + 233321 := \mathbf{356653} \\ 212 \times 11 + 11 \times 212 &= 2332 + 2332 := \mathbf{4664} & 12112 \times 11 + 11 \times 21121 &= 133232 + 232331 := \mathbf{365563} \\ & & 11111 \times 12 + 21 \times 11111 &= 133332 + 233331 := \mathbf{366663} \\ 1121 \times 11 + 11 \times 1211 &= 12331 + 13321 := \mathbf{25652} & 21112 \times 11 + 11 \times 21112 &= 232232 + 232232 := \mathbf{464464} \\ 1112 \times 11 + 11 \times 2111 &= 12232 + 23221 := \mathbf{35453} & & \\ 1111 \times 12 + 21 \times 1111 &= 13332 + 23331 := \mathbf{36663} & 111 \times 111 + 111 \times 111 &= 12321 + 12321 := \mathbf{24642} \\ 1212 \times 11 + 11 \times 2121 &= 13332 + 23331 := \mathbf{36663} & 1111 \times 111 + 111 \times 1111 &= 123321 + 123321 := \mathbf{246642} \\ 2112 \times 11 + 11 \times 2112 &= 23232 + 23232 := \mathbf{46464} & 11111 \times 111 + 111 \times 11111 &= 1233321 + 1233321 := \mathbf{2466642} \end{aligned}$$

3.3 Digits 1, 2, 3 and 4

Below are examples of palindromic-type numbers with digits 1, 2, 3 and 4.

$$\begin{aligned} 13 \times 11 + 11 \times 31 &= 143 + 341 := \mathbf{484} & 111 \times 13 + 31 \times 111 &= 1443 + 3441 := \mathbf{4884} \\ 22 \times 11 + 11 \times 22 &= 242 + 242 := \mathbf{484} & 111 \times 22 + 22 \times 111 &= 2442 + 2442 := \mathbf{4884} \\ 12 \times 12 + 21 \times 21 &= 144 + 441 := \mathbf{585} & 222 \times 11 + 11 \times 222 &= 2442 + 2442 := \mathbf{4884} \\ 131 \times 11 + 11 \times 131 &= 1441 + 1441 := \mathbf{2882} & 112 \times 12 + 21 \times 211 &= 1344 + 4431 := \mathbf{5775} \\ 122 \times 11 + 11 \times 221 &= 1342 + 2431 := \mathbf{3773} & 213 \times 11 + 11 \times 312 &= 2343 + 3432 := \mathbf{5775} \\ 113 \times 11 + 11 \times 311 &= 1243 + 3421 := \mathbf{4664} & 313 \times 11 + 11 \times 313 &= 3443 + 3443 := \mathbf{6886} \end{aligned}$$

$$\begin{aligned}
1131 \times 11 + 11 \times 1311 &= 12441 + 14421 := \mathbf{26862} \\
1221 \times 11 + 11 \times 1221 &= 13431 + 13431 := \mathbf{26862} \\
1122 \times 11 + 11 \times 2211 &= 12342 + 24321 := \mathbf{36663} \\
1222 \times 11 + 11 \times 2221 &= 13442 + 24431 := \mathbf{37873} \\
1312 \times 11 + 11 \times 2131 &= 14432 + 23441 := \mathbf{37873} \\
1113 \times 11 + 11 \times 3111 &= 12243 + 34221 := \mathbf{46464} \\
1213 \times 11 + 11 \times 3121 &= 13343 + 34331 := \mathbf{47674} \\
2122 \times 11 + 11 \times 2212 &= 23342 + 24332 := \mathbf{47674} \\
1111 \times 13 + 31 \times 1111 &= 14443 + 34441 := \mathbf{48884} \\
1111 \times 22 + 22 \times 1111 &= 24442 + 24442 := \mathbf{48884} \\
1313 \times 11 + 11 \times 3131 &= 14443 + 34441 := \mathbf{48884} \\
2222 \times 11 + 11 \times 2222 &= 24442 + 24442 := \mathbf{48884} \\
2113 \times 11 + 11 \times 3112 &= 23243 + 34232 := \mathbf{57475} \\
1112 \times 12 + 21 \times 2111 &= 13344 + 44331 := \mathbf{57675} \\
2213 \times 11 + 11 \times 3122 &= 24343 + 34342 := \mathbf{58685} \\
3113 \times 11 + 11 \times 3113 &= 34243 + 34243 := \mathbf{68486}
\end{aligned}$$

$$\begin{aligned}
11311 \times 11 + 11 \times 11311 &= 124421 + 124421 := \mathbf{248842} \\
11221 \times 11 + 11 \times 12211 &= 123431 + 134321 := \mathbf{257752} \\
11131 \times 11 + 11 \times 13111 &= 122441 + 144221 := \mathbf{266662} \\
12221 \times 11 + 11 \times 12221 &= 134431 + 134431 := \mathbf{268862} \\
12131 \times 11 + 11 \times 13121 &= 133441 + 144331 := \mathbf{277772} \\
13131 \times 11 + 11 \times 13131 &= 144441 + 144441 := \mathbf{288882} \\
11312 \times 11 + 11 \times 21311 &= 124432 + 234421 := \mathbf{358853} \\
11122 \times 11 + 11 \times 22111 &= 122342 + 243221 := \mathbf{365563} \\
11222 \times 11 + 11 \times 22211 &= 123442 + 244321 := \mathbf{367763} \\
12212 \times 11 + 11 \times 21221 &= 134332 + 233431 := \mathbf{367763} \\
12122 \times 11 + 11 \times 22121 &= 133342 + 243331 := \mathbf{376673} \\
13112 \times 11 + 11 \times 21131 &= 144232 + 232441 := \mathbf{376673} \\
12222 \times 11 + 11 \times 22221 &= 134442 + 244431 := \mathbf{378873} \\
13122 \times 11 + 11 \times 22131 &= 144342 + 243441 := \mathbf{387783}
\end{aligned}$$

$$\begin{aligned}
11113 \times 11 + 11 \times 31111 &= 122243 + 342221 := \mathbf{464464} \\
11213 \times 11 + 11 \times 31211 &= 123343 + 343321 := \mathbf{466664} \\
11313 \times 11 + 11 \times 31311 &= 124443 + 344421 := \mathbf{468864} \\
21312 \times 11 + 11 \times 21312 &= 234432 + 234432 := \mathbf{468864} \\
12113 \times 11 + 11 \times 31121 &= 133243 + 342331 := \mathbf{475574} \\
21122 \times 11 + 11 \times 22112 &= 232342 + 243232 := \mathbf{475574} \\
12213 \times 11 + 11 \times 31221 &= 134343 + 343431 := \mathbf{477774} \\
21222 \times 11 + 11 \times 22212 &= 233442 + 244332 := \mathbf{477774} \\
13113 \times 11 + 11 \times 31131 &= 144243 + 342441 := \mathbf{486684} \\
22122 \times 11 + 11 \times 22122 &= 243342 + 243342 := \mathbf{486684} \\
11111 \times 13 + 31 \times 11111 &= 144443 + 344441 := \mathbf{488884} \\
11111 \times 22 + 22 \times 11111 &= 244442 + 244442 := \mathbf{488884} \\
22222 \times 11 + 11 \times 22222 &= 244442 + 244442 := \mathbf{488884} \\
21113 \times 11 + 11 \times 31112 &= 232243 + 342232 := \mathbf{574475} \\
11112 \times 12 + 21 \times 21111 &= 133344 + 443331 := \mathbf{576675} \\
21213 \times 11 + 11 \times 31212 &= 233343 + 343332 := \mathbf{576675} \\
21313 \times 11 + 11 \times 31312 &= 234443 + 344432 := \mathbf{578875} \\
22113 \times 11 + 11 \times 31122 &= 243243 + 342342 := \mathbf{585585} \\
22213 \times 11 + 11 \times 31222 &= 244343 + 343442 := \mathbf{587785} \\
31113 \times 11 + 11 \times 31113 &= 342243 + 342243 := \mathbf{684486} \\
31213 \times 11 + 11 \times 31213 &= 343343 + 343343 := \mathbf{686686} \\
31313 \times 11 + 11 \times 31313 &= 344443 + 344443 := \mathbf{688886}
\end{aligned}$$

$$121 \times 111 + 111 \times 121 = 13431 + 13431 := \mathbf{26862}$$

$$112 \times 111 + 111 \times 211 = 12432 + 23421 := \mathbf{35853}$$

$$\begin{aligned}
1121 \times 111 + 111 \times 1211 &= 124431 + 134421 := \mathbf{258852} \\
1111 \times 121 + 121 \times 1111 &= 134431 + 134431 := \mathbf{268862} \\
1112 \times 111 + 111 \times 2111 &= 123432 + 234321 := \mathbf{357753} \\
1111 \times 112 + 211 \times 1111 &= 124432 + 234421 := \mathbf{358853} \\
2112 \times 111 + 111 \times 2112 &= 234432 + 234432 := \mathbf{468864}
\end{aligned}$$

$$1111 \times 1111 + 1111 \times 1111 = 1234321 + 1234321 := \mathbf{2468642}$$

$$\begin{aligned}
11211 \times 111 + 111 \times 11211 &= 1244421 + 1244421 := \mathbf{2488842} \\
11121 \times 111 + 111 \times 12111 &= 1234431 + 1344321 := \mathbf{2578752} \\
11111 \times 121 + 121 \times 11111 &= 1344431 + 1344431 := \mathbf{2688862} \\
11112 \times 111 + 111 \times 21111 &= 1233432 + 2343321 := \mathbf{3576753} \\
11111 \times 112 + 211 \times 11111 &= 1244432 + 2344421 := \mathbf{3588853} \\
12112 \times 111 + 111 \times 21121 &= 1344432 + 2344431 := \mathbf{3688863} \\
21112 \times 111 + 111 \times 21112 &= 2343432 + 2343432 := \mathbf{4686864}
\end{aligned}$$

$$11111 \times 1111 + 1111 \times 11111 = 12344321 + 12344321 := \mathbf{24688642}$$

3.4 Digits 1, 2, 3, 4 and 5

In this case not all the numbers give final sum as palindromes. We have separated these numbers in two parts.

3.4.1 Palindromic Sum

$$121 \times 12 + 21 \times 121 = 1452 + 2541 := \mathbf{3993}$$

$$132 \times 11 + 11 \times 231 = 1452 + 2541 := \mathbf{3993}$$

$$112 \times 21 + 12 \times 211 = 2352 + 2532 := \mathbf{4884}$$

$$123 \times 11 + 11 \times 321 = 1353 + 3531 := \mathbf{4884}$$

$$114 \times 11 + 11 \times 411 = 1254 + 4521 := \mathbf{5775}$$

$$223 \times 11 + 11 \times 322 = 2453 + 3542 := \mathbf{5995}$$

$$214 \times 11 + 11 \times 412 = 2354 + 4532 := \mathbf{6886}$$

$$212 \times 12 + 21 \times 212 = 2544 + 4452 := \mathbf{6996}$$

$$314 \times 11 + 11 \times 413 = 3454 + 4543 := \mathbf{7997}$$

$$1132 \times 11 + 11 \times 2311 = 12452 + 25421 := \mathbf{37873}$$

$$1121 \times 12 + 21 \times 1211 = 13452 + 25431 := \mathbf{38883}$$

$$1123 \times 11 + 11 \times 3211 = 12353 + 35321 := \mathbf{47674}$$

$$1112 \times 21 + 12 \times 2111 = 23352 + 25332 := \mathbf{48684}$$

$$1223 \times 11 + 11 \times 3221 = 13453 + 35431 := \mathbf{48884}$$

$$2132 \times 11 + 11 \times 2312 = 23452 + 25432 := \mathbf{48884}$$

$$1114 \times 11 + 11 \times 4111 = 12254 + 45221 := \mathbf{57475}$$

$$1214 \times 11 + 11 \times 4121 = 13354 + 45331 := \mathbf{58685}$$

$$2123 \times 11 + 11 \times 3212 = 23353 + 35332 := \mathbf{58685}$$

$$1314 \times 11 + 11 \times 4131 = 14454 + 45441 := \mathbf{59895}$$

$$2223 \times 11 + 11 \times 3222 = 24453 + 35442 := \mathbf{59895}$$

$$2313 \times 11 + 11 \times 3132 = 25443 + 34452 := \mathbf{59895}$$

$$2114 \times 11 + 11 \times 4112 = 23254 + 45232 := \mathbf{68486}$$

$$2112 \times 12 + 21 \times 2112 = 25344 + 44352 := \mathbf{69696}$$

$$2214 \times 11 + 11 \times 4122 = 24354 + 45342 := \mathbf{69696}$$

$$3123 \times 11 + 11 \times 3213 = 34353 + 35343 := \mathbf{69696}$$

$$3114 \times 11 + 11 \times 4113 = 34254 + 45243 := \mathbf{79497}$$

$$11321 \times 11 + 11 \times 12311 = 124531 + 135421 := \mathbf{259952}$$

$$11231 \times 11 + 11 \times 13211 = 123541 + 145321 := \mathbf{268862}$$

$$11141 \times 11 + 11 \times 14111 = 122551 + 155221 := \mathbf{277772}$$

$$12231 \times 11 + 11 \times 13221 = 134541 + 145431 := \mathbf{279972}$$

$$12141 \times 11 + 11 \times 14121 = 133551 + 155331 := \mathbf{288882}$$

$$13141 \times 11 + 11 \times 14131 = 144551 + 155441 := \mathbf{299992}$$

$$11211 \times 12 + 21 \times 11211 = 134532 + 235431 := \mathbf{369963}$$

$$11322 \times 11 + 11 \times 22311 = 124542 + 245421 := \mathbf{369963}$$

$$12312 \times 11 + 11 \times 21321 = 135432 + 234531 := \mathbf{369963}$$

$$11132 \times 11 + 11 \times 23111 = 122452 + 254221 := \mathbf{376673}$$

$$11121 \times 21 + 12 \times 12111 = 233541 + 145332 := \mathbf{378873}$$

$$11232 \times 11 + 11 \times 23211 = 123552 + 255321 := \mathbf{378873}$$

$$13212 \times 11 + 11 \times 21231 = 145332 + 233541 := \mathbf{378873}$$

$$11121 \times 12 + 21 \times 12111 = 133452 + 254331 := \mathbf{387783}$$

$$12132 \times 11 + 11 \times 23121 = 133452 + 254331 := \mathbf{387783}$$

$$14112 \times 11 + 11 \times 21141 = 155232 + 232551 := \mathbf{387783}$$

$$12232 \times 11 + 11 \times 23221 = 134552 + 255431 := \mathbf{389983}$$

$$13222 \times 11 + 11 \times 22231 = 145442 + 244541 := \mathbf{389983}$$

$$13132 \times 11 + 11 \times 23131 = 144452 + 254441 := \mathbf{398893}$$

$$14122 \times 11 + 11 \times 22141 = 155342 + 243551 := \mathbf{398893}$$

$$12121 \times 12 + 21 \times 12121 = 145452 + 254541 := \mathbf{399993}$$

$$11123 \times 11 + 11 \times 32111 = 122353 + 353221 := \mathbf{475574}$$

$$11223 \times 11 + 11 \times 32211 = 123453 + 354321 := \mathbf{477774}$$

$$11323 \times 11 + 11 \times 32311 = 124553 + 355421 := \mathbf{479974}$$

$$12313 \times 11 + 11 \times 31321 = 135443 + 344531 := \mathbf{479974}$$

$$21322 \times 11 + 11 \times 22312 = 234542 + 245432 := \mathbf{479974}$$

$$11112 \times 21 + 12 \times 21111 = 233352 + 253332 := \mathbf{486684}$$

$$12123 \times 11 + 11 \times 32121 = 133353 + 353331 := \mathbf{486684}$$

$$21132 \times 11 + 11 \times 23112 = 232452 + 254232 := \mathbf{486684}$$

$$12223 \times 11 + 11 \times 32221 = 134453 + 354431 := \mathbf{488884}$$

$$13213 \times 11 + 11 \times 31231 = 145343 + 343541 := \mathbf{488884}$$

$$21232 \times 11 + 11 \times 23212 = 233552 + 255332 := \mathbf{488884}$$

$$11212 \times 21 + 12 \times 21211 = 235452 + 254532 := \mathbf{489984}$$

$$13123 \times 11 + 11 \times 32131 = 144353 + 353441 := \mathbf{497794}$$

$$14113 \times 11 + 11 \times 31141 = 155243 + 342551 := \mathbf{497794}$$

$$22132 \times 11 + 11 \times 23122 = 243452 + 254342 := \mathbf{497794}$$

$$13223 \times 11 + 11 \times 32231 = 145453 + 354541 := \mathbf{499994}$$

$$22232 \times 11 + 11 \times 23222 = 244552 + 255442 := \mathbf{499994}$$

$$11114 \times 11 + 11 \times 41111 = 122254 + 452221 := \mathbf{574475}$$

$$11214 \times 11 + 11 \times 41211 = 123354 + 453321 := \mathbf{576675}$$

$$11314 \times 11 + 11 \times 41311 = 124454 + 454421 := \mathbf{578875}$$

$$\begin{aligned}
11212 \times 12 + 21 \times 21211 &= 134544 + 445431 := \mathbf{579975} \\
12114 \times 11 + 11 \times 41121 &= 133254 + 452331 := \mathbf{585585} \\
21123 \times 11 + 11 \times 32112 &= 232353 + 353232 := \mathbf{585585} \\
12214 \times 11 + 11 \times 41221 &= 134354 + 453431 := \mathbf{587785} \\
21223 \times 11 + 11 \times 32212 &= 233453 + 354332 := \mathbf{587785} \\
12112 \times 12 + 21 \times 21121 &= 145344 + 443541 := \mathbf{588885} \\
12314 \times 11 + 11 \times 41321 &= 135454 + 454531 := \mathbf{589985} \\
21323 \times 11 + 11 \times 32312 &= 234553 + 355432 := \mathbf{589985} \\
22313 \times 11 + 11 \times 31322 &= 245443 + 344542 := \mathbf{589985} \\
13114 \times 11 + 11 \times 41131 &= 144254 + 452441 := \mathbf{596695} \\
22123 \times 11 + 11 \times 32122 &= 243353 + 353342 := \mathbf{596695} \\
23113 \times 11 + 11 \times 31132 &= 254243 + 342452 := \mathbf{596695} \\
13214 \times 11 + 11 \times 41231 &= 145354 + 453541 := \mathbf{598895} \\
22223 \times 11 + 11 \times 32222 &= 244453 + 354442 := \mathbf{598895} \\
23213 \times 11 + 11 \times 31232 &= 255343 + 343552 := \mathbf{598895} \\
21114 \times 11 + 11 \times 41112 &= 232254 + 452232 := \mathbf{684486} \\
21214 \times 11 + 11 \times 41212 &= 233354 + 453332 := \mathbf{686686} \\
21314 \times 11 + 11 \times 41312 &= 234454 + 454432 := \mathbf{688886}
\end{aligned}$$

$$\begin{aligned}
22114 \times 11 + 11 \times 41122 &= 243254 + 452342 := \mathbf{695596} \\
31123 \times 11 + 11 \times 32113 &= 342353 + 353243 := \mathbf{695596} \\
21112 \times 12 + 21 \times 21112 &= 253344 + 443352 := \mathbf{696696} \\
22214 \times 11 + 11 \times 41222 &= 244354 + 453442 := \mathbf{697796} \\
31223 \times 11 + 11 \times 32213 &= 343453 + 354343 := \mathbf{697796} \\
21212 \times 12 + 21 \times 21212 &= 254544 + 445452 := \mathbf{699996} \\
22314 \times 11 + 11 \times 41322 &= 245454 + 454542 := \mathbf{699996} \\
31323 \times 11 + 11 \times 32313 &= 344553 + 355443 := \mathbf{699996} \\
31114 \times 11 + 11 \times 41113 &= 342254 + 452243 := \mathbf{794497} \\
31214 \times 11 + 11 \times 41213 &= 343354 + 453343 := \mathbf{796697} \\
31314 \times 11 + 11 \times 41313 &= 344454 + 454443 := \mathbf{798897} \\
1122 \times 111 + 111 \times 2211 &= 124542 + 245421 := \mathbf{369963} \\
1212 \times 111 + 111 \times 2121 &= 134532 + 235431 := \mathbf{369963} \\
1112 \times 121 + 121 \times 2111 &= 134552 + 255431 := \mathbf{389983} \\
1113 \times 111 + 111 \times 3111 &= 123543 + 345321 := \mathbf{468864} \\
1112 \times 112 + 211 \times 2111 &= 124544 + 445421 := \mathbf{569965} \\
2113 \times 111 + 111 \times 3112 &= 234543 + 345432 := \mathbf{579975}
\end{aligned}$$

$$\begin{aligned}
11212 \times 111 + 111 \times 21211 &= 1244532 + 2354421 := \mathbf{3598953} \\
11122 \times 111 + 111 \times 22111 &= 1234542 + 2454321 := \mathbf{3688863} \\
11112 \times 121 + 121 \times 21111 &= 1344552 + 2554431 := \mathbf{3898983} \\
11113 \times 111 + 111 \times 31111 &= 1233543 + 3453321 := \mathbf{4686864} \\
12113 \times 111 + 111 \times 31121 &= 1344543 + 3454431 := \mathbf{4798974} \\
21122 \times 111 + 111 \times 22112 &= 2344542 + 2454432 := \mathbf{4798974} \\
11112 \times 112 + 211 \times 21111 &= 1244544 + 4454421 := \mathbf{5698965} \\
21113 \times 111 + 111 \times 31112 &= 2343543 + 3453432 := \mathbf{5796975}
\end{aligned}$$

$$11112 \times 1111 + 1111 \times 21111 = 12345432 + 23454321 := \mathbf{35799753}$$

3.4.2 Non Palindromic Sum

$$\begin{aligned}
21 \times 12 + 21 \times 12 &= 252 + 252 := \mathbf{504} \\
14 \times 11 + 11 \times 41 &= 154 + 451 := \mathbf{605} \\
23 \times 11 + 11 \times 32 &= 253 + 352 := \mathbf{605} \\
141 \times 11 + 11 \times 141 &= 1551 + 1551 := \mathbf{3102} \\
232 \times 11 + 11 \times 232 &= 2552 + 2552 := \mathbf{5104} \\
111 \times 14 + 41 \times 111 &= 1554 + 4551 := \mathbf{6105} \\
111 \times 23 + 32 \times 111 &= 2553 + 3552 := \mathbf{6105} \\
323 \times 11 + 11 \times 323 &= 3553 + 3553 := \mathbf{7106} \\
414 \times 11 + 11 \times 414 &= 4554 + 4554 := \mathbf{9108}
\end{aligned}$$

$$\begin{aligned}
1141 \times 11 + 11 \times 1411 &= 12551 + 15521 := \mathbf{28072} \\
1231 \times 11 + 11 \times 1321 &= 13541 + 14531 := \mathbf{28072} \\
1121 \times 21 + 21 \times 1211 &= 23541 + 14532 := \mathbf{38073} \\
1232 \times 11 + 11 \times 2321 &= 13552 + 25531 := \mathbf{39083} \\
1322 \times 11 + 11 \times 2231 &= 14542 + 24541 := \mathbf{39083} \\
1412 \times 11 + 11 \times 2141 &= 15532 + 23551 := \mathbf{39083} \\
1323 \times 11 + 11 \times 3231 &= 14553 + 35541 := \mathbf{50094} \\
1413 \times 11 + 11 \times 3141 &= 15543 + 34551 := \mathbf{50094} \\
2232 \times 11 + 11 \times 2322 &= 24552 + 25542 := \mathbf{50094} \\
1212 \times 21 + 21 \times 2121 &= 25452 + 25452 := \mathbf{50904}
\end{aligned}$$

$$1212 \times 12 + 21 \times 2121 = 14544 + 44541 := \mathbf{59085}$$

$$1111 \times 14 + 41 \times 1111 = 15554 + 45551 := \mathbf{61105}$$

$$1111 \times 23 + 32 \times 1111 = 25553 + 35552 := \mathbf{61105}$$

$$1414 \times 11 + 11 \times 4141 = 15554 + 45551 := \mathbf{61105}$$

$$2323 \times 11 + 11 \times 3232 = 25553 + 35552 := \mathbf{61105}$$

$$2314 \times 11 + 11 \times 4132 = 25454 + 45452 := \mathbf{70906}$$

$$3223 \times 11 + 11 \times 3223 = 35453 + 35453 := \mathbf{70906}$$

$$3214 \times 11 + 11 \times 4123 = 35354 + 45353 := \mathbf{80707}$$

$$4114 \times 11 + 11 \times 4114 = 45254 + 45254 := \mathbf{90508}$$

$$11411 \times 11 + 11 \times 11411 = 125521 + 125521 := \mathbf{251042}$$

$$12321 \times 11 + 11 \times 12321 = 135531 + 135531 := \mathbf{271062}$$

$$13231 \times 11 + 11 \times 13231 = 145541 + 145541 := \mathbf{291082}$$

$$14141 \times 11 + 11 \times 14141 = 155551 + 155551 := \mathbf{311102}$$

$$11412 \times 11 + 11 \times 21411 = 125532 + 235521 := \mathbf{361053}$$

$$12322 \times 11 + 11 \times 22321 = 135542 + 245531 := \mathbf{381073}$$

$$13232 \times 11 + 11 \times 23231 = 145552 + 255541 := \mathbf{401093}$$

$$14132 \times 11 + 11 \times 23141 = 155452 + 254551 := \mathbf{410003}$$

$$11413 \times 11 + 11 \times 31411 = 125543 + 345521 := \mathbf{471064}$$

$$21412 \times 11 + 11 \times 21412 = 235532 + 235532 := \mathbf{471064}$$

$$12323 \times 11 + 11 \times 32321 = 135553 + 355531 := \mathbf{491084}$$

$$22322 \times 11 + 11 \times 22322 = 245542 + 245542 := \mathbf{491084}$$

$$12112 \times 21 + 12 \times 21121 = 254352 + 253452 := \mathbf{507804}$$

$$14123 \times 11 + 11 \times 32141 = 155353 + 353551 := \mathbf{508904}$$

$$23132 \times 11 + 11 \times 23132 = 254452 + 254452 := \mathbf{508904}$$

$$23232 \times 11 + 11 \times 23232 = 255552 + 255552 := \mathbf{511104}$$

$$11414 \times 11 + 11 \times 41411 = 125554 + 455521 := \mathbf{581075}$$

$$21413 \times 11 + 11 \times 31412 = 235543 + 345532 := \mathbf{581075}$$

$$22323 \times 11 + 11 \times 32322 = 245553 + 355542 := \mathbf{601095}$$

$$14114 \times 11 + 11 \times 41141 = 155254 + 452551 := \mathbf{607805}$$

$$23123 \times 11 + 11 \times 32132 = 254353 + 353452 := \mathbf{607805}$$

$$23223 \times 11 + 11 \times 32232 = 255453 + 354552 := \mathbf{610005}$$

$$11111 \times 14 + 41 \times 11111 = 155554 + 455551 := \mathbf{611105}$$

$$11111 \times 23 + 32 \times 11111 = 255553 + 355552 := \mathbf{611105}$$

$$21414 \times 11 + 11 \times 41412 = 235554 + 455532 := \mathbf{691086}$$

$$31413 \times 11 + 11 \times 31413 = 345543 + 345543 := \mathbf{691086}$$

$$23114 \times 11 + 11 \times 41132 = 254254 + 452452 := \mathbf{706706}$$

$$32123 \times 11 + 11 \times 32123 = 353353 + 353353 := \mathbf{706706}$$

$$23214 \times 11 + 11 \times 41232 = 255354 + 453552 := \mathbf{708906}$$

$$32223 \times 11 + 11 \times 32223 = 354453 + 354453 := \mathbf{708906}$$

$$32323 \times 11 + 11 \times 32323 = 355553 + 355553 := \mathbf{711106}$$

$$31414 \times 11 + 11 \times 41413 = 345554 + 455543 := \mathbf{801097}$$

$$32114 \times 11 + 11 \times 41123 = 353254 + 452353 := \mathbf{805607}$$

$$32214 \times 11 + 11 \times 41223 = 354354 + 453453 := \mathbf{807807}$$

$$32314 \times 11 + 11 \times 41323 = 355454 + 454553 := \mathbf{810007}$$

$$41114 \times 11 + 11 \times 41114 = 452254 + 452254 := \mathbf{904508}$$

$$41214 \times 11 + 11 \times 41214 = 453354 + 453354 := \mathbf{906708}$$

$$41314 \times 11 + 11 \times 41314 = 454454 + 454454 := \mathbf{908908}$$

$$41414 \times 11 + 11 \times 41414 = 455554 + 455554 := \mathbf{911108}$$

$$131 \times 111 + 111 \times 131 = 14541 + 14541 := \mathbf{29082}$$

$$122 \times 111 + 111 \times 221 = 13542 + 24531 := \mathbf{38073}$$

$$121 \times 112 + 211 \times 121 = 13552 + 25531 := \mathbf{39083}$$

$$113 \times 111 + 111 \times 311 = 12543 + 34521 := \mathbf{47064}$$

$$212 \times 111 + 111 \times 212 = 23532 + 23532 := \mathbf{47064}$$

$$112 \times 112 + 211 \times 211 = 12544 + 44521 := \mathbf{57065}$$

$$1131 \times 111 + 111 \times 1311 = 125541 + 145521 := \mathbf{271062}$$

$$1221 \times 111 + 111 \times 1221 = 135531 + 135531 := \mathbf{271062}$$

$$1111 \times 131 + 131 \times 1111 = 145541 + 145541 := \mathbf{291082}$$

$$1111 \times 122 + 221 \times 1111 = 135542 + 245531 := \mathbf{381073}$$

$$1121 \times 112 + 211 \times 1211 = 125552 + 255521 := \mathbf{381073}$$

$$1111 \times 113 + 311 \times 1111 = 125543 + 345521 := \mathbf{471064}$$

$$1111 \times 212 + 212 \times 1111 = 235532 + 235532 := \mathbf{471064}$$

$$2122 \times 111 + 111 \times 2212 = 235542 + 245532 := \mathbf{481074}$$

$$2112 \times 121 + 121 \times 2112 = 255552 + 255552 := \mathbf{511104}$$

$$3113 \times 111 + 111 \times 3113 = 345543 + 345543 := \mathbf{691086}$$

$$11311 \times 111 + 111 \times 11311 = 1255521 + 1255521 := \mathbf{2511042}$$

$$11221 \times 111 + 111 \times 12211 = 1245531 + 1355421 := \mathbf{2600952}$$

$$11131 \times 111 + 111 \times 13111 = 1235541 + 1455321 := \mathbf{2690862}$$

$$12121 \times 111 + 111 \times 12121 = 1345431 + 1345431 := \mathbf{2690862}$$

$$11111 \times 131 + 131 \times 11111 = 1455541 + 1455541 := \mathbf{2911082}$$

$$12212 \times 111 + 111 \times 21221 = 1355532 + 2355531 := \mathbf{3711063}$$

$$11121 \times 112 + 211 \times 12111 = 1245552 + 2555421 := \mathbf{3800973}$$

$$12122 \times 111 + 111 \times 22121 = 1345542 + 2455431 := \mathbf{3800973}$$

$$13112 \times 111 + 111 \times 21131 = 1455432 + 2345541 := \mathbf{3800973}$$

$$11111 \times 122 + 221 \times 11111 = 1355542 + 2455531 := \mathbf{3811073}$$

$$21212 \times 111 + 111 \times 21212 = 2354532 + 2354532 := \mathbf{4709064}$$

$$11111 \times 113 + 311 \times 11111 = 1255543 + 3455521 := \mathbf{4711064}$$

$$11111 \times 212 + 212 \times 11111 = 2355532 + 2355532 := \mathbf{4711064}$$

$$13113 \times 111 + 111 \times 31131 = 1455543 + 3455541 := \mathbf{4911084}$$

$$22122 \times 111 + 111 \times 22122 = 2455542 + 2455542 := \mathbf{4911084}$$

$$21112 \times 121 + 121 \times 21112 = 2554552 + 2554552 := \mathbf{5109104}$$

$$22113 \times 111 + 111 \times 31122 = 2454543 + 3454542 := \mathbf{5909085} \quad 1121 \times 1111 + 1111 \times 1211 = 1245431 + 1345421 := \mathbf{2590852}$$

$$31113 \times 111 + 111 \times 31113 = 3453543 + 3453543 := \mathbf{6907086} \quad 1112 \times 1111 + 1111 \times 2111 = 1235432 + 2345321 := \mathbf{3580753}$$

$$11211 \times 1111 + 1111 \times 11211 = 12455421 + 12455421 := \mathbf{24910842}$$

$$11121 \times 1111 + 1111 \times 12111 = 12355431 + 13455321 := \mathbf{25810752}$$

$$11111 \times 1121 + 1211 \times 11111 = 12455431 + 13455421 := \mathbf{25910852}$$

$$11111 \times 1112 + 2111 \times 11111 = 12355432 + 23455321 := \mathbf{35810753}$$

$$21112 \times 1111 + 1111 \times 21112 = 23455432 + 23455432 := \mathbf{46910864}$$

$$11111 \times 11111 + 11111 \times 11111 = 123454321 + 123454321 := \mathbf{246908642}$$

4 Specific Digits Palindromic-Type Expressions with Zero

In this section we shall work with **palindromic-type expressions** with specific digits. For example, with numbers $\{0,1\}$, $\{0,1,2\}$, $\{0,1,2,3\}$, etc. Interestingly, up to digits $\{0, 1,2,3,4\}$ the final sum is always palindrome. When we work with digits $\{0,1,2,3,4,5\}$, the final sum is not necessarily a palindrome. In this case we considered in two parts when sum is palindrome and second when sum is not palindrome. The total sum values are not in the digit's representations. Examples in each case are given separately in the following subsections:

4.1 Digits 0 and 1

Examples below are **palindromic-type expressions** with two digits 0 and 1 on both sides of the expressions, except the sum, where total sum is with 0, 1 and 2. In this case we have very few numbers. Final sum is also a palindromes.

$$101 \times 11 + 11 \times 101 = 1111 + 1111 := \mathbf{2222}$$

$$1001 \times 11 + 11 \times 1001 = 11011 + 11011 := \mathbf{22022}$$

$$10001 \times 11 + 11 \times 10001 = 110011 + 110011 := \mathbf{220022}$$

$$10101 \times 11 + 11 \times 10101 = 111111 + 111111 := \mathbf{222222}$$

$$1001 \times 101 + 101 \times 1001 = 101101 + 101101 := \mathbf{202202}$$

$$1001 \times 111 + 111 \times 1001 = 111111 + 111111 := \mathbf{222222}$$

$$10001 \times 101 + 101 \times 10001 = 1010101 + 1010101 := \mathbf{2020202}$$

$$10001 \times 111 + 111 \times 10001 = 1110111 + 1110111 := \mathbf{2220222}$$

$$10011 \times 101 + 101 \times 11001 = 1011111 + 1111101 := \mathbf{2122212}$$

$$10001 \times 1001 + 1001 \times 10001 = 10011001 + 10011001 := \mathbf{20022002}$$

$$10001 \times 1011 + 1101 \times 10001 = 10111011 + 11011101 := \mathbf{21122112}$$

$$10001 \times 1111 + 1111 \times 10001 = 11111111 + 11111111 := \mathbf{22222222}$$

$$10101 \times 1001 + 1001 \times 10101 = 10111101 + 10111101 := \mathbf{20222202}$$

4.2 Digits 0, 1 and 2

Below are examples of **palindromic-type expressions** with digits 0, 1 and 2 on both sides of the expressions. Interestingly, the sum in each case is always a palindrome.

$$101 \times 11 + 11 \times 101 = 1111 + 1111 := \mathbf{2222}$$

$$101 \times 12 + 21 \times 101 = 1212 + 2121 := \mathbf{3333}$$

$$102 \times 11 + 11 \times 201 = 1122 + 2211 := \mathbf{3333}$$

$$101 \times 22 + 22 \times 101 = 2222 + 2222 := \mathbf{4444}$$

$$202 \times 11 + 11 \times 202 = 2222 + 2222 := \mathbf{4444}$$

$$1001 \times 11 + 11 \times 1001 = 11011 + 11011 := \mathbf{22022}$$

$$1011 \times 11 + 11 \times 1101 = 11121 + 12111 := \mathbf{23232}$$

$$1001 \times 12 + 21 \times 1001 = 12012 + 21021 := \mathbf{33033}$$

$$1002 \times 11 + 11 \times 2001 = 11022 + 22011 := \mathbf{33033}$$

$$1102 \times 11 + 11 \times 2011 = 12122 + 22121 := \mathbf{34243}$$

$$1001 \times 22 + 22 \times 1001 = 22022 + 22022 := \mathbf{44044}$$

$$2002 \times 11 + 11 \times 2002 = 22022 + 22022 := \mathbf{44044}$$

$$10001 \times 11 + 11 \times 10001 = 110011 + 110011 := \mathbf{220022}$$

$$10101 \times 11 + 11 \times 10101 = 111111 + 111111 := \mathbf{222222}$$

$$10201 \times 11 + 11 \times 10201 = 112211 + 112211 := \mathbf{224422}$$

$$10011 \times 11 + 11 \times 11001 = 110121 + 121011 := \mathbf{231132}$$

$$10111 \times 11 + 11 \times 11101 = 111221 + 122111 := \mathbf{233332}$$

$$11011 \times 11 + 11 \times 11011 = 121121 + 121121 := \mathbf{242242}$$

$$10001 \times 12 + 21 \times 10001 = 120012 + 210021 := \mathbf{330033}$$

$$10002 \times 11 + 11 \times 20001 = 110022 + 220011 := \mathbf{330033}$$

$$10102 \times 11 + 11 \times 20101 = 111122 + 221111 := \mathbf{332233}$$

$$10101 \times 12 + 21 \times 10101 = 121212 + 212121 := \mathbf{333333}$$

$$10202 \times 11 + 11 \times 20201 = 112222 + 222211 := \mathbf{334433}$$

$$11002 \times 11 + 11 \times 20011 = 121022 + 220121 := \mathbf{341143}$$

$$11102 \times 11 + 11 \times 20111 = 122122 + 221221 := \mathbf{343343}$$

$$10001 \times 22 + 22 \times 10001 = 220022 + 220022 := \mathbf{440044}$$

$$20002 \times 11 + 11 \times 20002 = 220022 + 220022 := \mathbf{440044}$$

$$20102 \times 11 + 11 \times 20102 = 221122 + 221122 := \mathbf{442244}$$

$$10101 \times 22 + 22 \times 10101 = 222222 + 222222 := \mathbf{444444}$$

$$20202 \times 11 + 11 \times 20202 = 222222 + 222222 := \mathbf{444444}$$

$$101 \times 101 + 101 \times 101 = 10201 + 10201 := \mathbf{20402}$$

$$111 \times 101 + 101 \times 111 = 11211 + 11211 := \mathbf{22422}$$

$$121 \times 101 + 101 \times 121 = 12221 + 12221 := \mathbf{24442}$$

$$1001 \times 101 + 101 \times 1001 = 101101 + 101101 := \mathbf{202202}$$

$$1011 \times 101 + 101 \times 1101 = 102111 + 111201 := \mathbf{213312}$$

$$1001 \times 111 + 111 \times 1001 = 111111 + 111111 := \mathbf{222222}$$

$$1111 \times 101 + 101 \times 1111 = 112211 + 112211 := \mathbf{224422}$$

$$1011 \times 111 + 111 \times 1101 = 112221 + 122211 := \mathbf{234432}$$

$$1001 \times 121 + 121 \times 1001 = 121121 + 121121 := \mathbf{242242}$$

$$1001 \times 102 + 201 \times 1001 = 102102 + 201201 := \mathbf{303303}$$

$$1002 \times 101 + 101 \times 2001 = 101202 + 202101 := \mathbf{303303}$$

$$1012 \times 101 + 101 \times 2101 = 102212 + 212201 := \mathbf{314413}$$

$$1001 \times 112 + 211 \times 1001 = 112112 + 211211 := \mathbf{323323}$$

$$1002 \times 111 + 111 \times 2001 = 111222 + 222111 := \mathbf{333333}$$

$$1001 \times 122 + 221 \times 1001 = 122122 + 221221 := \mathbf{343343}$$

$$1001 \times 202 + 202 \times 1001 = 202202 + 202202 := \mathbf{404404}$$

$$2002 \times 101 + 101 \times 2002 = 202202 + 202202 := \mathbf{404404}$$

$$1001 \times 212 + 212 \times 1001 = 212212 + 212212 := \mathbf{424424}$$

$$1001 \times 222 + 222 \times 1001 = 222222 + 222222 := \mathbf{444444}$$

$$2002 \times 111 + 111 \times 2002 = 222222 + 222222 := \mathbf{444444}$$

$$10001 \times 101 + 101 \times 10001 = 1010101 + 1010101 := \mathbf{2020202}$$

$$10101 \times 101 + 101 \times 10101 = 1020201 + 1020201 := \mathbf{2040402}$$

$$10011 \times 101 + 101 \times 11001 = 1011111 + 1111101 := \mathbf{2122212}$$

$$10111 \times 101 + 101 \times 11101 = 1021211 + 1121201 := \mathbf{2142412}$$

$$10001 \times 111 + 111 \times 10001 = 1110111 + 1110111 := \mathbf{2220222}$$

$$10021 \times 101 + 101 \times 12001 = 1012121 + 1212101 := \mathbf{2224222}$$

$$11011 \times 101 + 101 \times 11011 = 1112111 + 1112111 := \mathbf{2224222}$$

$$10101 \times 111 + 111 \times 10101 = 1121211 + 1121211 := \mathbf{2242422}$$

$$10121 \times 101 + 101 \times 12101 = 1022221 + 1222201 := \mathbf{2244422}$$

$$11111 \times 101 + 101 \times 11111 = 1122211 + 1122211 := \mathbf{2244422}$$

$$10011 \times 111 + 111 \times 11001 = 1111221 + 1221111 := \mathbf{2332332}$$

$$10001 \times 121 + 121 \times 10001 = 1210121 + 1210121 := \mathbf{2420242}$$

$$10101 \times 121 + 121 \times 10101 = 1222221 + 1222221 := \mathbf{2444442}$$

$$11011 \times 111 + 111 \times 11011 = 1222221 + 1222221 := \mathbf{2444442}$$

$$10001 \times 102 + 201 \times 10001 = 1020102 + 2010201 := \mathbf{3030303}$$

$$10002 \times 101 + 101 \times 20001 = 1010202 + 2020101 := \mathbf{3030303}$$

$$10012 \times 101 + 101 \times 21001 = 1011212 + 2121101 := \mathbf{3132313}$$

$$11002 \times 101 + 101 \times 20011 = 1111202 + 2021111 := \mathbf{3132313}$$

$$10011 \times 201 + 102 \times 11001 = 2012211 + 1122102 := \mathbf{3134313}$$

$$10001 \times 112 + 211 \times 10001 = 1120112 + 2110211 := \mathbf{3230323}$$

$$10011 \times 102 + 201 \times 11001 = 1021122 + 2211201 := \mathbf{3232323}$$

$$10022 \times 101 + 101 \times 22001 = 1012222 + 222101 := \mathbf{3234323}$$

$$11012 \times 101 + 101 \times 21011 = 1112212 + 2122111 := \mathbf{3234323}$$

$$12002 \times 101 + 101 \times 20021 = 1212202 + 2022121 := \mathbf{3234323}$$

$$10002 \times 111 + 111 \times 20001 = 1110222 + 2220111 := \mathbf{3330333}$$

$$10001 \times 122 + 221 \times 10001 = 1220122 + 2210221 := \mathbf{3430343}$$

$$11002 \times 111 + 111 \times 20011 = 1221222 + 2221221 := \mathbf{3442443}$$

$$\begin{aligned}
10001 \times 202 + 202 \times 10001 &= 2020202 + 2020202 := \mathbf{4040404} \\
20002 \times 101 + 101 \times 20002 &= 2020202 + 2020202 := \mathbf{4040404} \\
20012 \times 101 + 101 \times 21002 &= 2021212 + 2121202 := \mathbf{4142414} \\
10001 \times 212 + 212 \times 10001 &= 2120212 + 2120212 := \mathbf{4240424} \\
10011 \times 202 + 202 \times 11001 &= 2022222 + 2222202 := \mathbf{4244424} \\
20022 \times 101 + 101 \times 22002 &= 2022222 + 2222202 := \mathbf{4244424} \\
21012 \times 101 + 101 \times 21012 &= 2122212 + 2122212 := \mathbf{4244424} \\
10001 \times 222 + 222 \times 10001 &= 2220222 + 2220222 := \mathbf{4440444} \\
20002 \times 111 + 111 \times 20002 &= 2220222 + 2220222 := \mathbf{4440444}
\end{aligned}$$

$$\begin{aligned}
1001 \times 1001 + 1001 \times 1001 &= 1002001 + 1002001 := \mathbf{2004002} \\
1011 \times 1001 + 1001 \times 1101 &= 1012011 + 1102101 := \mathbf{2114112} \\
1021 \times 1001 + 1001 \times 1201 &= 1022021 + 1202201 := \mathbf{2224222} \\
1111 \times 1001 + 1001 \times 1111 &= 1112111 + 1112111 := \mathbf{2224222} \\
1011 \times 1011 + 1101 \times 1101 &= 1022121 + 1212201 := \mathbf{2234322} \\
1121 \times 1001 + 1001 \times 1211 &= 1122121 + 1212211 := \mathbf{2334332} \\
1221 \times 1001 + 1001 \times 1221 &= 1222221 + 1222221 := \mathbf{2444442}
\end{aligned}$$

$$\begin{aligned}
10001 \times 1001 + 1001 \times 10001 &= 10011001 + 10011001 := \mathbf{20022002} \\
10101 \times 1001 + 1001 \times 10101 &= 10111101 + 10111101 := \mathbf{20222202} \\
10201 \times 1001 + 1001 \times 10201 &= 10211201 + 10211201 := \mathbf{20422402} \\
10011 \times 1001 + 1001 \times 11001 &= 10021011 + 11012001 := \mathbf{21033012} \\
10001 \times 1011 + 1101 \times 10001 &= 10111011 + 11011101 := \mathbf{21122112} \\
10111 \times 1001 + 1001 \times 11101 &= 10121111 + 11112101 := \mathbf{21233212} \\
10101 \times 1011 + 1101 \times 10101 &= 10212111 + 11121201 := \mathbf{21333312} \\
10211 \times 1001 + 1001 \times 11201 &= 10221211 + 11212201 := \mathbf{21433412} \\
11011 \times 1001 + 1001 \times 11011 &= 11022011 + 11022011 := \mathbf{22044022} \\
10011 \times 1101 + 1011 \times 11001 &= 11022111 + 11122011 := \mathbf{22144122} \\
10001 \times 1021 + 1201 \times 10001 &= 10211021 + 12011201 := \mathbf{22222222} \\
10001 \times 1111 + 1111 \times 10001 &= 11111111 + 11111111 := \mathbf{22222222} \\
10011 \times 1011 + 1101 \times 11001 &= 10121121 + 12112101 := \mathbf{22233222} \\
11111 \times 1001 + 1001 \times 11111 &= 11122111 + 11122111 := \mathbf{22244222} \\
10101 \times 1111 + 1111 \times 10101 &= 11222211 + 11222211 := \mathbf{22444422} \\
10111 \times 1011 + 1101 \times 11101 &= 10222221 + 12222201 := \mathbf{22444422} \\
11211 \times 1001 + 1001 \times 11211 &= 11222211 + 11222211 := \mathbf{22444422} \\
10001 \times 1121 + 1211 \times 10001 &= 11211121 + 12111211 := \mathbf{23322332} \\
10011 \times 1111 + 1111 \times 11001 &= 11122221 + 12222111 := \mathbf{23344332} \\
10001 \times 1221 + 1221 \times 10001 &= 12211221 + 12211221 := \mathbf{24422442} \\
10001 \times 1002 + 2001 \times 10001 &= 10021002 + 20012001 := \mathbf{30033003} \\
10002 \times 1001 + 1001 \times 20001 &= 10012002 + 20021001 := \mathbf{30033003} \\
10102 \times 1001 + 1001 \times 20101 &= 10112102 + 20121101 := \mathbf{30233203} \\
10101 \times 1002 + 2001 \times 10101 &= 10121202 + 20212101 := \mathbf{30333303}
\end{aligned}$$

$$\begin{aligned}
10202 \times 1001 + 1001 \times 20201 &= 10212202 + 20221201 := \mathbf{30433403} \\
10012 \times 1001 + 1001 \times 21001 &= 10022012 + 21022001 := \mathbf{31044013} \\
10001 \times 1012 + 2101 \times 10001 &= 10121012 + 21012101 := \mathbf{31133113} \\
10001 \times 1102 + 2011 \times 10001 &= 11021102 + 20112011 := \mathbf{31133113} \\
10002 \times 1101 + 1011 \times 20001 &= 11012202 + 20221011 := \mathbf{31233213} \\
10112 \times 1001 + 1001 \times 21101 &= 10122112 + 21122101 := \mathbf{31244213} \\
10101 \times 1012 + 2101 \times 10101 &= 10222212 + 21222201 := \mathbf{31444413} \\
10212 \times 1001 + 1001 \times 21201 &= 10222212 + 21222201 := \mathbf{31444413} \\
10002 \times 1011 + 1101 \times 20001 &= 10112022 + 22021101 := \mathbf{32133123} \\
10001 \times 1022 + 2201 \times 10001 &= 10221022 + 22012201 := \mathbf{32233223} \\
10001 \times 1112 + 2111 \times 10001 &= 11121112 + 21112111 := \mathbf{32233223} \\
10001 \times 1202 + 2021 \times 10001 &= 12021202 + 20212021 := \mathbf{32233223} \\
10001 \times 1122 + 2211 \times 10001 &= 11221122 + 22112211 := \mathbf{33333333} \\
10001 \times 1212 + 2121 \times 10001 &= 12121212 + 21212121 := \mathbf{33333333} \\
10002 \times 1111 + 1111 \times 20001 &= 11112222 + 22221111 := \mathbf{33333333} \\
10001 \times 1222 + 2221 \times 10001 &= 12221222 + 22212221 := \mathbf{34433443} \\
10001 \times 2002 + 2002 \times 10001 &= 20022002 + 20022002 := \mathbf{40044004} \\
20002 \times 1001 + 1001 \times 20002 &= 20022002 + 20022002 := \mathbf{40044004} \\
20102 \times 1001 + 1001 \times 20102 &= 20122102 + 20122102 := \mathbf{40244204} \\
10101 \times 2002 + 2002 \times 10101 &= 20222202 + 20222202 := \mathbf{40444404} \\
20202 \times 1001 + 1001 \times 20202 &= 20222202 + 20222202 := \mathbf{40444404} \\
10001 \times 2012 + 2102 \times 10001 &= 20122012 + 21022102 := \mathbf{41144114} \\
10001 \times 2022 + 2202 \times 10001 &= 20222022 + 22022202 := \mathbf{42244224} \\
10001 \times 2112 + 2112 \times 10001 &= 21122112 + 21122112 := \mathbf{42244224} \\
20002 \times 1011 + 1101 \times 20002 &= 20222022 + 22022202 := \mathbf{42244224} \\
10001 \times 2122 + 2212 \times 10001 &= 21222122 + 22122212 := \mathbf{43344334} \\
10001 \times 2222 + 2222 \times 10001 &= 22222222 + 22222222 := \mathbf{44444444} \\
20002 \times 1111 + 1111 \times 20002 &= 22222222 + 22222222 := \mathbf{44444444}
\end{aligned}$$

$$\begin{aligned}
10001 \times 10001 + 10001 \times 10001 &= 100020001 + 100020001 := \mathbf{200040002} \\
10101 \times 10001 + 10001 \times 10101 &= 101020101 + 101020101 := \mathbf{202040202} \\
10201 \times 10001 + 10001 \times 10201 &= 102020201 + 102020201 := \mathbf{204040402} \\
10011 \times 10001 + 10001 \times 11001 &= 100120011 + 110021001 := \mathbf{210141012} \\
10111 \times 10001 + 10001 \times 11101 &= 101120111 + 111021101 := \mathbf{212141212} \\
10101 \times 10011 + 11001 \times 10101 &= 101121111 + 111121101 := \mathbf{212242212} \\
10211 \times 10001 + 10001 \times 11201 &= 102120211 + 112021201 := \mathbf{214141412} \\
10201 \times 10011 + 11001 \times 10201 &= 102122211 + 112221201 := \mathbf{214343412} \\
10021 \times 10001 + 10001 \times 12001 &= 100220021 + 120022001 := \mathbf{220242022} \\
11011 \times 10001 + 10001 \times 11011 &= 110121011 + 110121011 := \mathbf{220242022} \\
10011 \times 10011 + 11001 \times 11001 &= 100220121 + 121022001 := \mathbf{221242122} \\
10121 \times 10001 + 10001 \times 12101 &= 101220121 + 121022101 := \mathbf{222242222} \\
11111 \times 10001 + 10001 \times 11111 &= 111121111 + 111121111 := \mathbf{222242222} \\
10101 \times 10021 + 12001 \times 10101 &= 101222121 + 121222101 := \mathbf{222444222} \\
11011 \times 10101 + 10101 \times 11011 &= 111222111 + 111222111 := \mathbf{222444222}
\end{aligned}$$

$$\begin{aligned}
10111 \times 10011 + 11001 \times 11101 &= 101221221 + 122122101 := \mathbf{223343322} \\
10221 \times 10001 + 10001 \times 12201 &= 102220221 + 122022201 := \mathbf{224242422} \\
11211 \times 10001 + 10001 \times 11211 &= 112121211 + 112121211 := \mathbf{224242422} \\
11021 \times 10001 + 10001 \times 12011 &= 110221021 + 120122011 := \mathbf{230343032} \\
11121 \times 10001 + 10001 \times 12111 &= 111221121 + 121122111 := \mathbf{232343232}
\end{aligned}$$

$$\begin{aligned}
11221 \times 10001 + 10001 \times 12211 &= 112221221 + 122122211 := \mathbf{234343432} \\
12021 \times 10001 + 10001 \times 12021 &= 120222021 + 120222021 := \mathbf{240444042} \\
12121 \times 10001 + 10001 \times 12121 &= 121222121 + 121222121 := \mathbf{242444242} \\
12221 \times 10001 + 10001 \times 12221 &= 122222221 + 122222221 := \mathbf{244444442}
\end{aligned}$$

4.3 Digits 0, 1, 2 and 3

Below are examples of **palindromic-type expressions** with digits 0, 1, 2 and 3 on both sides of the expression. In this case the final sum in each case is palindrome.

$$\begin{aligned}
101 \times 13 + 31 \times 101 &= 1313 + 3131 := \mathbf{4444} \\
103 \times 11 + 11 \times 301 &= 1133 + 3311 := \mathbf{4444} \\
101 \times 23 + 32 \times 101 &= 2323 + 3232 := \mathbf{5555} \\
203 \times 11 + 11 \times 302 &= 2233 + 3322 := \mathbf{5555} \\
101 \times 33 + 33 \times 101 &= 3333 + 3333 := \mathbf{6666} \\
303 \times 11 + 11 \times 303 &= 3333 + 3333 := \mathbf{6666}
\end{aligned}$$

$$\begin{aligned}
1021 \times 11 + 11 \times 1201 &= 11231 + 13211 := \mathbf{24442} \\
1012 \times 11 + 11 \times 2101 &= 11132 + 23111 := \mathbf{34243} \\
1011 \times 21 + 12 \times 1101 &= 21231 + 13212 := \mathbf{34443} \\
1011 \times 12 + 21 \times 1101 &= 12132 + 23121 := \mathbf{35253} \\
1202 \times 11 + 11 \times 2021 &= 13222 + 22231 := \mathbf{35453} \\
1212 \times 11 + 11 \times 2121 &= 13332 + 23331 := \mathbf{36663} \\
1001 \times 13 + 31 \times 1001 &= 13013 + 31031 := \mathbf{44044} \\
1003 \times 11 + 11 \times 3001 &= 11033 + 33011 := \mathbf{44044} \\
1103 \times 11 + 11 \times 3011 &= 12133 + 33121 := \mathbf{45254} \\
2012 \times 11 + 11 \times 2102 &= 22132 + 23122 := \mathbf{45254} \\
1203 \times 11 + 11 \times 3021 &= 13233 + 33231 := \mathbf{46464} \\
1001 \times 23 + 32 \times 1001 &= 23023 + 32032 := \mathbf{55055} \\
2003 \times 11 + 11 \times 3002 &= 22033 + 33022 := \mathbf{55055} \\
2103 \times 11 + 11 \times 3012 &= 23133 + 33132 := \mathbf{56265} \\
1001 \times 33 + 33 \times 1001 &= 33033 + 33033 := \mathbf{66066} \\
3003 \times 11 + 11 \times 3003 &= 33033 + 33033 := \mathbf{66066}
\end{aligned}$$

$$\begin{aligned}
10301 \times 11 + 11 \times 10301 &= 113311 + 113311 := \mathbf{226622} \\
10211 \times 11 + 11 \times 11201 &= 112321 + 123211 := \mathbf{235532} \\
10021 \times 11 + 11 \times 12001 &= 110231 + 132011 := \mathbf{242242} \\
10121 \times 11 + 11 \times 12101 &= 111331 + 133111 := \mathbf{244442} \\
11021 \times 11 + 11 \times 12011 &= 121231 + 132121 := \mathbf{253352} \\
12021 \times 11 + 11 \times 12021 &= 132231 + 132231 := \mathbf{264462} \\
12121 \times 11 + 11 \times 12121 &= 133331 + 133331 := \mathbf{266662} \\
10302 \times 11 + 11 \times 20301 &= 113322 + 223311 := \mathbf{336633}
\end{aligned}$$

$$\begin{aligned}
10012 \times 11 + 11 \times 21001 &= 110132 + 231011 := \mathbf{341143} \\
10011 \times 21 + 12 \times 11001 &= 210231 + 132012 := \mathbf{342243} \\
10112 \times 11 + 11 \times 21101 &= 111232 + 232111 := \mathbf{343343} \\
10111 \times 21 + 12 \times 11101 &= 212331 + 133212 := \mathbf{345543} \\
10212 \times 11 + 11 \times 21201 &= 112332 + 233211 := \mathbf{345543} \\
11202 \times 11 + 11 \times 20211 &= 123222 + 222321 := \mathbf{345543} \\
10011 \times 12 + 21 \times 11001 &= 120132 + 231021 := \mathbf{351153} \\
11012 \times 11 + 11 \times 21011 &= 121132 + 231121 := \mathbf{352253} \\
12002 \times 11 + 11 \times 20021 &= 132022 + 220231 := \mathbf{352253} \\
10111 \times 12 + 21 \times 11101 &= 121332 + 233121 := \mathbf{354453} \\
12102 \times 11 + 11 \times 20121 &= 133122 + 221331 := \mathbf{354453} \\
11011 \times 12 + 21 \times 11011 &= 132132 + 231231 := \mathbf{363363} \\
12012 \times 11 + 11 \times 21021 &= 132132 + 231231 := \mathbf{363363} \\
10001 \times 13 + 31 \times 10001 &= 130013 + 310031 := \mathbf{440044} \\
10003 \times 11 + 11 \times 30001 &= 110033 + 330011 := \mathbf{440044} \\
10103 \times 11 + 11 \times 30101 &= 111133 + 331111 := \mathbf{442244} \\
10101 \times 13 + 31 \times 10101 &= 131313 + 313131 := \mathbf{444444} \\
10203 \times 11 + 11 \times 30201 &= 112233 + 332211 := \mathbf{444444} \\
10303 \times 11 + 11 \times 30301 &= 113333 + 333311 := \mathbf{446644} \\
20302 \times 11 + 11 \times 20302 &= 223322 + 223322 := \mathbf{446644} \\
11003 \times 11 + 11 \times 30011 &= 121033 + 330121 := \mathbf{451154} \\
20012 \times 11 + 11 \times 21002 &= 220132 + 231022 := \mathbf{451154} \\
11103 \times 11 + 11 \times 30111 &= 122133 + 331221 := \mathbf{453354} \\
20112 \times 11 + 11 \times 21102 &= 221232 + 232122 := \mathbf{453354} \\
11203 \times 11 + 11 \times 30211 &= 123233 + 332321 := \mathbf{455554} \\
20212 \times 11 + 11 \times 21202 &= 222332 + 233222 := \mathbf{455554} \\
12003 \times 11 + 11 \times 30021 &= 132033 + 330231 := \mathbf{462264} \\
21012 \times 11 + 11 \times 21012 &= 231132 + 231132 := \mathbf{462264} \\
12103 \times 11 + 11 \times 30121 &= 133133 + 331331 := \mathbf{464464} \\
21112 \times 11 + 11 \times 21112 &= 232232 + 232232 := \mathbf{464464} \\
21212 \times 11 + 11 \times 21212 &= 233332 + 233332 := \mathbf{466664}
\end{aligned}$$

$$\begin{aligned}
10001 \times 23 + 32 \times 10001 &= 230023 + 320032 := \mathbf{550055} \\
20003 \times 11 + 11 \times 30002 &= 220033 + 330022 := \mathbf{550055} \\
20103 \times 11 + 11 \times 30102 &= 221133 + 331122 := \mathbf{552255} \\
20203 \times 11 + 11 \times 30202 &= 222233 + 332222 := \mathbf{554455} \\
10101 \times 23 + 32 \times 10101 &= 232323 + 323232 := \mathbf{555555} \\
20303 \times 11 + 11 \times 30302 &= 223333 + 333322 := \mathbf{556655} \\
21003 \times 11 + 11 \times 30012 &= 231033 + 330132 := \mathbf{561165} \\
21103 \times 11 + 11 \times 30112 &= 232133 + 331232 := \mathbf{563365} \\
21203 \times 11 + 11 \times 30212 &= 233233 + 332332 := \mathbf{565565} \\
10001 \times 33 + 33 \times 10001 &= 330033 + 330033 := \mathbf{660066} \\
30003 \times 11 + 11 \times 30003 &= 330033 + 330033 := \mathbf{660066} \\
30103 \times 11 + 11 \times 30103 &= 331133 + 331133 := \mathbf{662266} \\
30203 \times 11 + 11 \times 30203 &= 332233 + 332233 := \mathbf{664466} \\
10101 \times 33 + 33 \times 10101 &= 333333 + 333333 := \mathbf{666666} \\
30303 \times 11 + 11 \times 30303 &= 333333 + 333333 := \mathbf{666666}
\end{aligned}$$

$$\begin{aligned}
131 \times 101 + 101 \times 131 &= 13231 + 13231 := \mathbf{26462} \\
102 \times 101 + 101 \times 201 &= 10302 + 20301 := \mathbf{30603} \\
112 \times 101 + 101 \times 211 &= 11312 + 21311 := \mathbf{32623} \\
111 \times 102 + 201 \times 111 &= 11322 + 22311 := \mathbf{33633} \\
122 \times 101 + 101 \times 221 &= 12322 + 22321 := \mathbf{34643} \\
132 \times 101 + 101 \times 231 &= 13332 + 23331 := \mathbf{36663}
\end{aligned}$$

$$\begin{aligned}
1021 \times 101 + 101 \times 1201 &= 103121 + 121301 := \mathbf{224422} \\
1121 \times 101 + 101 \times 1211 &= 113221 + 122311 := \mathbf{235532} \\
1021 \times 111 + 111 \times 1201 &= 113331 + 133311 := \mathbf{246642} \\
1221 \times 101 + 101 \times 1221 &= 123321 + 123321 := \mathbf{246642} \\
1011 \times 121 + 121 \times 1101 &= 122331 + 133221 := \mathbf{255552} \\
1001 \times 131 + 131 \times 1001 &= 131131 + 131131 := \mathbf{262262} \\
1102 \times 101 + 101 \times 2011 &= 111302 + 203111 := \mathbf{314413} \\
1011 \times 201 + 102 \times 1101 &= 203211 + 112302 := \mathbf{315513} \\
1011 \times 102 + 201 \times 1101 &= 103122 + 221301 := \mathbf{324423} \\
1022 \times 101 + 101 \times 2201 &= 103222 + 222301 := \mathbf{325523} \\
2111 \times 101 + 101 \times 1112 &= 213211 + 112312 := \mathbf{325523} \\
1011 \times 211 + 112 \times 1101 &= 213321 + 123312 := \mathbf{336633} \\
1111 \times 102 + 201 \times 1111 &= 113322 + 223311 := \mathbf{336633} \\
1122 \times 101 + 101 \times 2211 &= 113322 + 223311 := \mathbf{336633} \\
1011 \times 112 + 211 \times 1101 &= 113232 + 232311 := \mathbf{345543} \\
1012 \times 111 + 111 \times 2101 &= 112332 + 233211 := \mathbf{345543} \\
1102 \times 111 + 111 \times 2011 &= 122322 + 223221 := \mathbf{345543} \\
1001 \times 132 + 231 \times 1001 &= 132132 + 231231 := \mathbf{363363}
\end{aligned}$$

$$\begin{aligned}
1001 \times 103 + 301 \times 1001 &= 103103 + 301301 := \mathbf{404404} \\
1003 \times 101 + 101 \times 3001 &= 101303 + 303101 := \mathbf{404404} \\
1013 \times 101 + 101 \times 3101 &= 102313 + 313201 := \mathbf{415514} \\
2012 \times 101 + 101 \times 2102 &= 203212 + 212302 := \mathbf{415514} \\
1001 \times 113 + 311 \times 1001 &= 113113 + 311311 := \mathbf{424424} \\
1023 \times 101 + 101 \times 3201 &= 103323 + 323301 := \mathbf{426624} \\
2112 \times 101 + 101 \times 2112 &= 213312 + 213312 := \mathbf{426624} \\
1001 \times 123 + 321 \times 1001 &= 123123 + 321321 := \mathbf{444444} \\
1003 \times 111 + 111 \times 3001 &= 111333 + 333111 := \mathbf{444444} \\
2012 \times 111 + 111 \times 2102 &= 223332 + 233322 := \mathbf{456654} \\
1001 \times 133 + 331 \times 1001 &= 133133 + 331331 := \mathbf{464464} \\
1001 \times 232 + 232 \times 1001 &= 232232 + 232232 := \mathbf{464464} \\
1001 \times 203 + 302 \times 1001 &= 203203 + 302302 := \mathbf{505505} \\
2003 \times 101 + 101 \times 3002 &= 202303 + 303202 := \mathbf{505505} \\
2013 \times 101 + 101 \times 3102 &= 203313 + 313302 := \mathbf{516615} \\
1001 \times 213 + 312 \times 1001 &= 213213 + 312312 := \mathbf{525525} \\
1001 \times 223 + 322 \times 1001 &= 223223 + 322322 := \mathbf{545545} \\
2003 \times 111 + 111 \times 3002 &= 222333 + 333222 := \mathbf{555555} \\
1001 \times 233 + 332 \times 1001 &= 233233 + 332332 := \mathbf{565565} \\
1001 \times 303 + 303 \times 1001 &= 303303 + 303303 := \mathbf{606606} \\
3003 \times 101 + 101 \times 3003 &= 303303 + 303303 := \mathbf{606606} \\
1001 \times 313 + 313 \times 1001 &= 313313 + 313313 := \mathbf{626626} \\
1001 \times 323 + 323 \times 1001 &= 323323 + 323323 := \mathbf{646646} \\
1001 \times 333 + 333 \times 1001 &= 333333 + 333333 := \mathbf{666666} \\
3003 \times 111 + 111 \times 3003 &= 333333 + 333333 := \mathbf{666666}
\end{aligned}$$

$$\begin{aligned}
10201 \times 101 + 101 \times 10201 &= 1030301 + 1030301 := \mathbf{2060602} \\
10211 \times 101 + 101 \times 11201 &= 1031311 + 1131301 := \mathbf{2162612} \\
10201 \times 111 + 111 \times 10201 &= 1132311 + 1132311 := \mathbf{2264622} \\
10221 \times 101 + 101 \times 12201 &= 1032321 + 1232301 := \mathbf{2264622} \\
11211 \times 101 + 101 \times 11211 &= 1132311 + 1132311 := \mathbf{2264622} \\
10031 \times 101 + 101 \times 13001 &= 1013131 + 1313101 := \mathbf{2326232} \\
11021 \times 101 + 101 \times 12011 &= 1113121 + 1213111 := \mathbf{2326232} \\
10131 \times 101 + 101 \times 13101 &= 1023231 + 1323201 := \mathbf{2346432} \\
11121 \times 101 + 101 \times 12111 &= 1123221 + 1223211 := \mathbf{2346432} \\
10111 \times 111 + 111 \times 11101 &= 1122321 + 1232211 := \mathbf{2354532} \\
10231 \times 101 + 101 \times 13201 &= 1033331 + 1333301 := \mathbf{2366632} \\
11221 \times 101 + 101 \times 12211 &= 1133321 + 1233311 := \mathbf{2366632} \\
10021 \times 111 + 111 \times 12001 &= 1112331 + 1332111 := \mathbf{2444442} \\
10011 \times 121 + 121 \times 11001 &= 1211331 + 1331121 := \mathbf{2542452} \\
11021 \times 111 + 111 \times 12011 &= 1223331 + 1333221 := \mathbf{2556552} \\
10001 \times 131 + 131 \times 10001 &= 1310131 + 1310131 := \mathbf{2620262}
\end{aligned}$$

$10101 \times 131 + 131 \times 10101 = 1323231 + 1323231 :=$	2646462	$11013 \times 101 + 101 \times 31011 = 1112313 + 3132111 :=$	4244424
$11011 \times 121 + 121 \times 11011 = 1332331 + 1332331 :=$	2664662	$12003 \times 101 + 101 \times 30021 = 1212303 + 3032121 :=$	4244424
$10102 \times 101 + 101 \times 20101 = 1020302 + 2030201 :=$	3050503	$20122 \times 101 + 101 \times 22102 = 2032322 + 2232302 :=$	4264624
$10101 \times 102 + 201 \times 10101 = 1030302 + 2030301 :=$	3060603	$21112 \times 101 + 101 \times 21112 = 2132312 + 2132312 :=$	4264624
$10112 \times 101 + 101 \times 21101 = 1021312 + 2131201 :=$	3152513	$10011 \times 103 + 301 \times 11001 = 1031133 + 3311301 :=$	4342434
$11102 \times 101 + 101 \times 20111 = 1121302 + 2031211 :=$	3152513	$10033 \times 101 + 101 \times 33001 = 1013333 + 3333101 :=$	4346434
$10111 \times 201 + 102 \times 11101 = 2032311 + 1132302 :=$	3164613	$11023 \times 101 + 101 \times 32011 = 1113323 + 3233111 :=$	4346434
$10122 \times 101 + 101 \times 22101 = 1022322 + 2232201 :=$	3254523	$12013 \times 101 + 101 \times 31021 = 1213313 + 3133121 :=$	4346434
$11112 \times 101 + 101 \times 21111 = 1122312 + 2132211 :=$	3254523	$13003 \times 101 + 101 \times 30031 = 1313303 + 3033131 :=$	4346434
$12102 \times 101 + 101 \times 20121 = 1222302 + 2032221 :=$	3254523	$20032 \times 101 + 101 \times 23002 = 2023232 + 2323202 :=$	4346434
$10101 \times 112 + 211 \times 10101 = 1131312 + 2131311 :=$	3262623	$21022 \times 101 + 101 \times 22012 = 2123222 + 2223212 :=$	4346434
$10111 \times 102 + 201 \times 11101 = 1031322 + 2231301 :=$	3262623	$20132 \times 101 + 101 \times 23102 = 2033332 + 2333302 :=$	4366634
$10032 \times 101 + 101 \times 23001 = 1013232 + 2323101 :=$	3336333	$21122 \times 101 + 101 \times 22112 = 2133322 + 2233312 :=$	4366634
$11011 \times 102 + 201 \times 11011 = 1123122 + 2213211 :=$	3336333	$10001 \times 123 + 321 \times 10001 = 1230123 + 3210321 :=$	4440444
$11022 \times 101 + 101 \times 22011 = 1113222 + 2223111 :=$	3336333	$10003 \times 111 + 111 \times 30001 = 1110333 + 3330111 :=$	4440444
$12012 \times 101 + 101 \times 21021 = 1213212 + 2123121 :=$	3336333	$10011 \times 212 + 212 \times 11001 = 2122332 + 2332212 :=$	4454544
$13002 \times 101 + 101 \times 20031 = 1313202 + 2023131 :=$	3336333	$20102 \times 111 + 111 \times 20102 = 2231322 + 2231322 :=$	4462644
$10011 \times 211 + 112 \times 11001 = 2112321 + 1232112 :=$	3344433	$11003 \times 111 + 111 \times 30011 = 1221333 + 3331221 :=$	4552554
$10102 \times 111 + 111 \times 20101 = 1121322 + 2231211 :=$	3352533	$20012 \times 111 + 111 \times 21002 = 2221332 + 2331222 :=$	4552554
$10132 \times 101 + 101 \times 23101 = 1023332 + 2333201 :=$	3356533	$10001 \times 133 + 331 \times 10001 = 1330133 + 3310331 :=$	4640464
$11122 \times 101 + 101 \times 22111 = 1123322 + 2233211 :=$	3356533	$10001 \times 232 + 232 \times 10001 = 2320232 + 2320232 :=$	4640464
$12112 \times 101 + 101 \times 21121 = 1223312 + 2133221 :=$	3356533	$12003 \times 111 + 111 \times 30021 = 1332333 + 3332331 :=$	4664664
$13102 \times 101 + 101 \times 20131 = 1323302 + 2033231 :=$	3356533	$21012 \times 111 + 111 \times 21012 = 2332332 + 2332332 :=$	4664664
$11111 \times 102 + 201 \times 11111 = 1133322 + 2233311 :=$	3366633	$10001 \times 203 + 302 \times 10001 = 2030203 + 3020302 :=$	5050505
$10011 \times 112 + 211 \times 11001 = 1121232 + 2321211 :=$	3442443	$20003 \times 101 + 101 \times 30002 = 2020303 + 3030202 :=$	5050505
$10012 \times 111 + 111 \times 21001 = 1111332 + 2331111 :=$	3442443	$20013 \times 101 + 101 \times 31002 = 2021313 + 3131202 :=$	5152515
$10101 \times 122 + 221 \times 10101 = 1232322 + 2232321 :=$	3464643	$21003 \times 101 + 101 \times 30012 = 2121303 + 3031212 :=$	5152515
$11102 \times 111 + 111 \times 20111 = 1232322 + 2232321 :=$	3464643	$10001 \times 213 + 312 \times 10001 = 2130213 + 3120312 :=$	5250525
$11012 \times 111 + 111 \times 21011 = 1222332 + 2332221 :=$	3554553	$20023 \times 101 + 101 \times 32002 = 2022323 + 3232202 :=$	5254525
$12002 \times 111 + 111 \times 20021 = 1332222 + 2222331 :=$	3554553	$21013 \times 101 + 101 \times 31012 = 2122313 + 3132212 :=$	5254525
$11011 \times 112 + 211 \times 11011 = 1233232 + 2323321 :=$	3556553	$22003 \times 101 + 101 \times 30022 = 2222303 + 3032222 :=$	5254525
$10001 \times 132 + 231 \times 10001 = 1320132 + 2310231 :=$	3630363	$10011 \times 302 + 203 \times 11001 = 3023322 + 2233203 :=$	5256525
$10101 \times 132 + 231 \times 10101 = 1333332 + 2333331 :=$	3666663	$10011 \times 203 + 302 \times 11001 = 2032233 + 3322302 :=$	5354535
$12012 \times 111 + 111 \times 21021 = 1333332 + 2333331 :=$	3666663	$20033 \times 101 + 101 \times 33002 = 2023333 + 3333202 :=$	5356535
$10001 \times 103 + 301 \times 10001 = 1030103 + 3010301 :=$	4040404	$21023 \times 101 + 101 \times 32012 = 2123323 + 3233212 :=$	5356535
$10003 \times 101 + 101 \times 30001 = 1010303 + 3030101 :=$	4040404	$22013 \times 101 + 101 \times 31022 = 2223313 + 3133222 :=$	5356535
$20102 \times 101 + 101 \times 20102 = 2030302 + 2030302 :=$	4060604	$23003 \times 101 + 101 \times 30032 = 2323303 + 3033232 :=$	5356535
$10013 \times 101 + 101 \times 31001 = 1011313 + 3131101 :=$	4142414	$10001 \times 223 + 322 \times 10001 = 2230223 + 3220322 :=$	5450545
$11003 \times 101 + 101 \times 30011 = 1111303 + 3031111 :=$	4142414	$20003 \times 111 + 111 \times 30002 = 2220333 + 3330222 :=$	5550555
$10011 \times 301 + 103 \times 11001 = 3013311 + 1133103 :=$	4146414	$10001 \times 233 + 332 \times 10001 = 2330233 + 3320332 :=$	5650565
$20112 \times 101 + 101 \times 21102 = 2031312 + 2131302 :=$	4162614	$21003 \times 111 + 111 \times 30012 = 2331333 + 3331332 :=$	5662665
$10001 \times 113 + 311 \times 10001 = 1130113 + 3110311 :=$	4240424	$10001 \times 303 + 303 \times 10001 = 3030303 + 3030303 :=$	6060606
$10023 \times 101 + 101 \times 32001 = 1012323 + 3232101 :=$	4244424	$30003 \times 101 + 101 \times 30003 = 3030303 + 3030303 :=$	6060606

$$\begin{aligned}
30013 \times 101 + 101 \times 31003 &= 3031313 + 3131303 := \mathbf{6162616} \\
10001 \times 313 + 313 \times 10001 &= 3130313 + 3130313 := \mathbf{6260626} \\
30023 \times 101 + 101 \times 32003 &= 3032323 + 3232303 := \mathbf{6264626} \\
31013 \times 101 + 101 \times 31013 &= 3132313 + 3132313 := \mathbf{6264626} \\
10011 \times 303 + 303 \times 11001 &= 3033333 + 3333303 := \mathbf{6366636} \\
30033 \times 101 + 101 \times 33003 &= 3033333 + 3333303 := \mathbf{6366636} \\
31023 \times 101 + 101 \times 32013 &= 3133323 + 3233313 := \mathbf{6366636} \\
10001 \times 323 + 323 \times 10001 &= 3230323 + 3230323 := \mathbf{6460646} \\
10001 \times 333 + 333 \times 10001 &= 3330333 + 3330333 := \mathbf{6660666} \\
30003 \times 111 + 111 \times 30003 &= 3330333 + 3330333 := \mathbf{6660666}
\end{aligned}$$

$$\begin{aligned}
1101 \times 1011 + 1101 \times 1011 &= 1113111 + 1113111 := \mathbf{2226222} \\
1031 \times 1001 + 1001 \times 1301 &= 1032031 + 1302301 := \mathbf{2334332} \\
1111 \times 1011 + 1101 \times 1111 &= 1123221 + 1223211 := \mathbf{2346432} \\
1021 \times 1011 + 1101 \times 1201 &= 1032231 + 1322301 := \mathbf{2354532} \\
1131 \times 1001 + 1001 \times 1311 &= 1132131 + 1312311 := \mathbf{2444442} \\
1121 \times 1011 + 1101 \times 1211 &= 1133331 + 1333311 := \mathbf{2466642} \\
1231 \times 1001 + 1001 \times 1321 &= 1232231 + 1322321 := \mathbf{2554552} \\
1331 \times 1001 + 1001 \times 1331 &= 1332331 + 1332331 := \mathbf{2664662} \\
1002 \times 1001 + 1001 \times 2001 &= 1003002 + 2003001 := \mathbf{3006003} \\
1012 \times 1001 + 1001 \times 2101 &= 1013012 + 2103101 := \mathbf{3116113}
\end{aligned}$$

$$\begin{aligned}
10301 \times 1001 + 1001 \times 10301 &= 10311301 + 10311301 := \mathbf{20622602} \\
10201 \times 1011 + 1101 \times 10201 &= 10313211 + 11231301 := \mathbf{21544512} \\
10311 \times 1001 + 1001 \times 11301 &= 10321311 + 11312301 := \mathbf{21633612} \\
10021 \times 1001 + 1001 \times 12001 &= 10031021 + 12013001 := \mathbf{22044022} \\
10121 \times 1001 + 1001 \times 12101 &= 10131121 + 12113101 := \mathbf{22244222} \\
10111 \times 1101 + 1011 \times 11101 &= 11132211 + 11223111 := \mathbf{22355322} \\
10101 \times 1021 + 1201 \times 10101 &= 10313121 + 12131301 := \mathbf{22444422} \\
10221 \times 1001 + 1001 \times 12201 &= 10231221 + 12213201 := \mathbf{22444422} \\
10321 \times 1001 + 1001 \times 12301 &= 10331321 + 12313301 := \mathbf{22644622} \\
11311 \times 1001 + 1001 \times 11311 &= 11322311 + 11322311 := \mathbf{22644622} \\
10211 \times 1011 + 1101 \times 11201 &= 10323321 + 12332301 := \mathbf{22655622} \\
10201 \times 1111 + 1111 \times 10201 &= 11333311 + 11333311 := \mathbf{22666622} \\
11021 \times 1001 + 1001 \times 12011 &= 11032021 + 12023011 := \mathbf{23055032} \\
10021 \times 1101 + 1011 \times 12001 &= 11033121 + 12133011 := \mathbf{23166132} \\
10011 \times 1201 + 1021 \times 11001 &= 12023211 + 11232021 := \mathbf{23255232} \\
11011 \times 1011 + 1101 \times 11011 &= 11132121 + 12123111 := \mathbf{23255232} \\
11121 \times 1001 + 1001 \times 12111 &= 11132121 + 12123111 := \mathbf{23255232} \\
10001 \times 1031 + 1301 \times 10001 &= 10311031 + 13011301 := \mathbf{23322332} \\
10021 \times 1011 + 1101 \times 12001 &= 10131231 + 13213101 := \mathbf{23344332} \\
10011 \times 1021 + 1201 \times 11001 &= 10221231 + 13212201 := \mathbf{23433432} \\
11221 \times 1001 + 1001 \times 12211 &= 11232221 + 12223211 := \mathbf{23455432} \\
11111 \times 1011 + 1101 \times 11111 &= 11233221 + 12233211 := \mathbf{23466432}
\end{aligned}$$

$$\begin{aligned}
1102 \times 1001 + 1001 \times 2011 &= 1103102 + 2013011 := \mathbf{31161113} \\
1101 \times 1002 + 2001 \times 1011 &= 1103202 + 2023011 := \mathbf{3126213} \\
1011 \times 1002 + 2001 \times 1101 &= 1013022 + 2203101 := \mathbf{3216123} \\
1022 \times 1001 + 1001 \times 2201 &= 1023022 + 2203201 := \mathbf{3226223} \\
1112 \times 1001 + 1001 \times 2111 &= 1113112 + 2113111 := \mathbf{3226223} \\
1202 \times 1001 + 1001 \times 2021 &= 1203202 + 2023021 := \mathbf{3226223} \\
1102 \times 1101 + 1011 \times 2011 &= 1213302 + 2033121 := \mathbf{3246423} \\
1012 \times 1011 + 1101 \times 2101 &= 1023132 + 2313201 := \mathbf{3336333} \\
1032 \times 1001 + 1001 \times 2301 &= 1033032 + 2303301 := \mathbf{3336333} \\
1111 \times 1002 + 2001 \times 1111 &= 1113222 + 2223111 := \mathbf{3336333} \\
1122 \times 1001 + 1001 \times 2211 &= 1123122 + 2213211 := \mathbf{3336333} \\
1212 \times 1001 + 1001 \times 2121 &= 1213212 + 2123121 := \mathbf{3336333} \\
1302 \times 1001 + 1001 \times 2031 &= 1303302 + 2033031 := \mathbf{3336333} \\
1132 \times 1001 + 1001 \times 2311 &= 1133132 + 2313311 := \mathbf{3446443} \\
1222 \times 1001 + 1001 \times 2221 &= 1223222 + 2223221 := \mathbf{3446443} \\
1312 \times 1001 + 1001 \times 2131 &= 1313312 + 2133131 := \mathbf{3446443} \\
1232 \times 1001 + 1001 \times 2321 &= 1233232 + 2323321 := \mathbf{3556553} \\
1322 \times 1001 + 1001 \times 2231 &= 1323322 + 2233231 := \mathbf{3556553} \\
1332 \times 1001 + 1001 \times 2331 &= 1333332 + 2333331 := \mathbf{3666663}
\end{aligned}$$

$$\begin{aligned}
10101 \times 1121 + 1211 \times 10101 &= 11323221 + 12232311 := \mathbf{23555532} \\
10121 \times 1011 + 1101 \times 12101 &= 10232331 + 13323201 := \mathbf{23555532} \\
10111 \times 1111 + 1111 \times 11101 &= 11233321 + 12333211 := \mathbf{23566532} \\
10111 \times 1021 + 1201 \times 11101 &= 10323331 + 13332301 := \mathbf{23655632} \\
11321 \times 1001 + 1001 \times 12311 &= 11332321 + 12323311 := \mathbf{23655632} \\
12021 \times 1001 + 1001 \times 12021 &= 12033021 + 12033021 := \mathbf{24066042} \\
12121 \times 1001 + 1001 \times 12121 &= 12133121 + 12133121 := \mathbf{24266242} \\
10001 \times 1131 + 1311 \times 10001 &= 11311131 + 13111311 := \mathbf{24422442} \\
10011 \times 1211 + 1121 \times 11001 &= 12123321 + 12332121 := \mathbf{24455442} \\
10021 \times 1111 + 1111 \times 12001 &= 11133331 + 13333111 := \mathbf{24466442} \\
11011 \times 1111 + 1111 \times 11011 &= 12233221 + 12233221 := \mathbf{24466442} \\
12221 \times 1001 + 1001 \times 12221 &= 12233221 + 12233221 := \mathbf{24466442} \\
10011 \times 1121 + 1211 \times 11001 &= 11222331 + 13322211 := \mathbf{24544542} \\
10101 \times 1221 + 1221 \times 10101 &= 12333321 + 12333321 := \mathbf{24666642} \\
12321 \times 1001 + 1001 \times 12321 &= 12333321 + 12333321 := \mathbf{24666642} \\
10001 \times 1231 + 1321 \times 10001 &= 12311231 + 13211321 := \mathbf{25522552} \\
10001 \times 1331 + 1331 \times 10001 &= 13311331 + 13311331 := \mathbf{26622662} \\
10302 \times 1001 + 1001 \times 20301 &= 10312302 + 20321301 := \mathbf{30633603} \\
11002 \times 1001 + 1001 \times 20011 &= 11013002 + 20031011 := \mathbf{31044013} \\
10011 \times 2001 + 1002 \times 11001 &= 20032011 + 11023002 := \mathbf{31055013} \\
11102 \times 1001 + 1001 \times 20111 &= 11113102 + 20131111 := \mathbf{31244213} \\
10111 \times 2001 + 1002 \times 11101 &= 20232111 + 11123202 := \mathbf{31355313}
\end{aligned}$$

$$\begin{aligned}
10101 \times 1102 + 2011 \times 10101 &= 11131302 + 20313111 := \mathbf{31444413} & 10011 \times 1202 + 2021 \times 11001 &= 12033222 + 22233021 := \mathbf{34266243} \\
10102 \times 1101 + 1011 \times 20101 &= 11122302 + 20322111 := \mathbf{31444413} & 11012 \times 1011 + 1101 \times 21011 &= 11133132 + 23133111 := \mathbf{34266243} \\
11202 \times 1001 + 1001 \times 20211 &= 11213202 + 20231211 := \mathbf{31444413} & 10011 \times 1112 + 2111 \times 11001 &= 11132232 + 23223111 := \mathbf{34355343} \\
10312 \times 1001 + 1001 \times 21301 &= 10322312 + 21322301 := \mathbf{31644613} & 10001 \times 1132 + 2311 \times 10001 &= 11321132 + 23112311 := \mathbf{34433443} \\
11302 \times 1001 + 1001 \times 20311 &= 11313302 + 20331311 := \mathbf{31644613} & 10001 \times 1312 + 2131 \times 10001 &= 13121312 + 21312131 := \mathbf{34433443} \\
10011 \times 1002 + 2001 \times 11001 &= 10031022 + 22013001 := \mathbf{32044023} & 10012 \times 1111 + 1111 \times 21001 &= 11123332 + 23332111 := \mathbf{34455443} \\
10022 \times 1001 + 1001 \times 22001 &= 10032022 + 22023001 := \mathbf{32055023} & 11002 \times 1111 + 1111 \times 20011 &= 12223222 + 22232221 := \mathbf{34455443} \\
11012 \times 1001 + 1001 \times 21011 &= 11023012 + 21032011 := \mathbf{32055023} & 10011 \times 2121 + 1212 \times 11001 &= 21233331 + 13333212 := \mathbf{34566543} \\
10011 \times 2101 + 1012 \times 11001 &= 21033111 + 11133012 := \mathbf{32166123} & 10011 \times 1212 + 2121 \times 11001 &= 12133332 + 23333121 := \mathbf{35466453} \\
10011 \times 2011 + 1102 \times 11001 &= 20132121 + 12123102 := \mathbf{32255223} & 10001 \times 1232 + 2321 \times 10001 &= 12321232 + 23212321 := \mathbf{35533553} \\
10012 \times 1101 + 1011 \times 21001 &= 11023212 + 21232011 := \mathbf{32255223} & 10001 \times 1322 + 2231 \times 10001 &= 13221322 + 22312231 := \mathbf{35533553} \\
10122 \times 1001 + 1001 \times 22101 &= 10132122 + 22123101 := \mathbf{32255223} & 10001 \times 1332 + 2331 \times 10001 &= 13321332 + 23312331 := \mathbf{36633663} \\
11112 \times 1001 + 1001 \times 21111 &= 11123112 + 21132111 := \mathbf{32255223} & 10001 \times 1003 + 3001 \times 10001 &= 10031003 + 30013001 := \mathbf{40044004} \\
10102 \times 1011 + 1101 \times 20101 &= 10213122 + 22131201 := \mathbf{32344323} & 10003 \times 1001 + 1001 \times 30001 &= 10013003 + 30031001 := \mathbf{40044004} \\
10111 \times 1002 + 2001 \times 11101 &= 10131222 + 22213101 := \mathbf{32344323} & 10103 \times 1001 + 1001 \times 30101 &= 10113103 + 30131101 := \mathbf{40244204} \\
11002 \times 1101 + 1011 \times 20011 &= 12113202 + 20231121 := \mathbf{32344323} & 10101 \times 1003 + 3001 \times 10101 &= 10131303 + 30313101 := \mathbf{40444404} \\
10222 \times 1001 + 1001 \times 22201 &= 10232222 + 22223201 := \mathbf{32455423} & 10203 \times 1001 + 1001 \times 30201 &= 10213203 + 30231201 := \mathbf{40444404} \\
11212 \times 1001 + 1001 \times 21211 &= 11223212 + 21232211 := \mathbf{32455423} & 10303 \times 1001 + 1001 \times 30301 &= 10313303 + 30331301 := \mathbf{40644604} \\
10112 \times 1101 + 1011 \times 21101 &= 11133312 + 21333111 := \mathbf{32466423} & 20302 \times 1001 + 1001 \times 20302 &= 20322302 + 20322302 := \mathbf{40644604} \\
10101 \times 1022 + 2201 \times 10101 &= 10323222 + 22232301 := \mathbf{32555523} & 10013 \times 1001 + 1001 \times 31001 &= 10023013 + 31032001 := \mathbf{41055014} \\
10101 \times 1112 + 2111 \times 10101 &= 11232312 + 21323211 := \mathbf{32555523} & 20012 \times 1001 + 1001 \times 21002 &= 20032012 + 21023002 := \mathbf{41055014} \\
11102 \times 1101 + 1011 \times 20111 &= 12223302 + 20332221 := \mathbf{32555523} & 10001 \times 1013 + 3101 \times 10001 &= 10131013 + 31013101 := \mathbf{41144114} \\
10111 \times 2011 + 1102 \times 11101 &= 20333221 + 12233302 := \mathbf{32566523} & 10001 \times 1103 + 3011 \times 10001 &= 11031103 + 30113011 := \mathbf{41144114} \\
10322 \times 1001 + 1001 \times 22301 &= 10332322 + 22323301 := \mathbf{32655623} & 10113 \times 1001 + 1001 \times 31101 &= 10123113 + 31132101 := \mathbf{41255214} \\
11312 \times 1001 + 1001 \times 21311 &= 11323312 + 21332311 := \mathbf{32655623} & 20112 \times 1001 + 1001 \times 21102 &= 20132112 + 21123102 := \mathbf{41255214} \\
11011 \times 1002 + 2001 \times 11011 &= 11033022 + 22033011 := \mathbf{33066033} & 10003 \times 1101 + 1011 \times 30001 &= 11013303 + 30331011 := \mathbf{41344314} \\
11022 \times 1001 + 1001 \times 22011 &= 11033022 + 22033011 := \mathbf{33066033} & 10213 \times 1001 + 1001 \times 31201 &= 10223213 + 31232201 := \mathbf{41455414} \\
10011 \times 1102 + 2011 \times 11001 &= 11032122 + 22123011 := \mathbf{33155133} & 20212 \times 1001 + 1001 \times 21202 &= 20232212 + 21223202 := \mathbf{41455414} \\
11002 \times 1011 + 1101 \times 20011 &= 11123022 + 22032111 := \mathbf{33155133} & 10101 \times 1013 + 3101 \times 10101 &= 10232313 + 31323201 := \mathbf{41555514} \\
10011 \times 1012 + 2101 \times 11001 &= 10131132 + 23113101 := \mathbf{33244233} & 10101 \times 2012 + 2102 \times 10101 &= 20323212 + 21232302 := \mathbf{41555514} \\
10012 \times 1011 + 1101 \times 21001 &= 10122132 + 23122101 := \mathbf{33244233} & 10313 \times 1001 + 1001 \times 31301 &= 10323313 + 31332301 := \mathbf{41655614} \\
11122 \times 1001 + 1001 \times 22111 &= 11133122 + 22133111 := \mathbf{33266233} & 20312 \times 1001 + 1001 \times 21302 &= 20332312 + 21323302 := \mathbf{41655614} \\
10001 \times 1032 + 2301 \times 10001 &= 10321032 + 23012301 := \mathbf{33333333} & 10023 \times 1001 + 1001 \times 32001 &= 10033023 + 32033001 := \mathbf{42066024} \\
10001 \times 1302 + 2031 \times 10001 &= 13021302 + 20312031 := \mathbf{33333333} & 21012 \times 1001 + 1001 \times 21012 &= 21033012 + 21033012 := \mathbf{42066024} \\
10011 \times 2111 + 1112 \times 11001 &= 21133221 + 12233112 := \mathbf{33366333} & 10001 \times 1023 + 3201 \times 10001 &= 10231023 + 32013201 := \mathbf{42244224} \\
11111 \times 1002 + 2001 \times 11111 &= 11133222 + 22233111 := \mathbf{33366333} & 10001 \times 1113 + 3111 \times 10001 &= 11131113 + 31113111 := \mathbf{42244224} \\
10011 \times 2021 + 1202 \times 11001 &= 20232231 + 13223202 := \mathbf{33455433} & 10001 \times 1203 + 3021 \times 10001 &= 12031203 + 30213021 := \mathbf{42244224} \\
10112 \times 1011 + 1101 \times 21101 &= 10223232 + 23232201 := \mathbf{33455433} & 10123 \times 1001 + 1001 \times 32101 &= 10133123 + 32133101 := \mathbf{42266224} \\
11222 \times 1001 + 1001 \times 22211 &= 11233222 + 22233211 := \mathbf{33466433} & 21112 \times 1001 + 1001 \times 21112 &= 21133112 + 21133112 := \mathbf{42266224} \\
10102 \times 1111 + 1111 \times 20101 &= 11223322 + 22332211 := \mathbf{33555533} & 20102 \times 1011 + 1101 \times 20102 &= 20323122 + 22132302 := \mathbf{42455424} \\
10111 \times 1012 + 2101 \times 11101 &= 10232332 + 23323201 := \mathbf{33555533} & 10223 \times 1001 + 1001 \times 32201 &= 10233223 + 32233201 := \mathbf{42466424} \\
10101 \times 1122 + 2211 \times 10101 &= 11333322 + 22333311 := \mathbf{33666633} & 21212 \times 1001 + 1001 \times 21212 &= 21233212 + 21233212 := \mathbf{42466424} \\
11322 \times 1001 + 1001 \times 22311 &= 11333322 + 22333311 := \mathbf{33666633} & 10101 \times 1023 + 3201 \times 10101 &= 10333323 + 32333301 := \mathbf{42666624}
\end{aligned}$$

$$\begin{aligned}
10101 \times 2112 + 2112 \times 10101 &= 21333312 + 21333312 := \mathbf{42666624} & 10001 \times 2123 + 3212 \times 10001 &= 21232123 + 32123212 := \mathbf{53355335} \\
10323 \times 1001 + 1001 \times 32301 &= 10333323 + 32333301 := \mathbf{42666624} & 10001 \times 2213 + 3122 \times 10001 &= 22132213 + 31223122 := \mathbf{53355335} \\
21312 \times 1001 + 1001 \times 21312 &= 21333312 + 21333312 := \mathbf{42666624} & 10001 \times 2303 + 3032 \times 10001 &= 23032303 + 30323032 := \mathbf{53355335} \\
10003 \times 1011 + 1101 \times 30001 &= 10113033 + 33031101 := \mathbf{43144134} & 10001 \times 2133 + 3312 \times 10001 &= 21332133 + 33123312 := \mathbf{54455445} \\
20012 \times 1101 + 1011 \times 21002 &= 22033212 + 21233022 := \mathbf{43266234} & 10001 \times 2223 + 3222 \times 10001 &= 22232223 + 32223222 := \mathbf{54455445} \\
10001 \times 1033 + 3301 \times 10001 &= 10331033 + 33013301 := \mathbf{43344334} & 10001 \times 2313 + 3132 \times 10001 &= 23132313 + 31323132 := \mathbf{54455445} \\
10001 \times 1123 + 3211 \times 10001 &= 11231123 + 32113211 := \mathbf{43344334} & 10001 \times 2233 + 3322 \times 10001 &= 22332233 + 33223322 := \mathbf{55555555} \\
10001 \times 1213 + 3121 \times 10001 &= 12131213 + 31213121 := \mathbf{43344334} & 10001 \times 2323 + 3232 \times 10001 &= 23232323 + 32323232 := \mathbf{55555555} \\
10001 \times 1303 + 3031 \times 10001 &= 13031303 + 30313031 := \mathbf{43344334} & 20003 \times 1111 + 1111 \times 30002 &= 22223333 + 33332222 := \mathbf{55555555} \\
10001 \times 2032 + 2302 \times 10001 &= 20322032 + 23022302 := \mathbf{43344334} & 10001 \times 2333 + 3332 \times 10001 &= 23332333 + 33323332 := \mathbf{56655665} \\
20012 \times 1011 + 1101 \times 21002 &= 20232132 + 23123202 := \mathbf{43355334} & 10001 \times 3003 + 3003 \times 10001 &= 30033003 + 30033003 := \mathbf{60066006} \\
20112 \times 1011 + 1101 \times 21102 &= 20333232 + 23233302 := \mathbf{43566534} & 30103 \times 1001 + 1001 \times 30103 &= 30133103 + 30133103 := \mathbf{60266206} \\
10001 \times 1133 + 3311 \times 10001 &= 11331133 + 33113311 := \mathbf{44444444} & 30203 \times 1001 + 1001 \times 30203 &= 30233203 + 30233203 := \mathbf{60466406} \\
10001 \times 1223 + 3221 \times 10001 &= 12231223 + 32213221 := \mathbf{44444444} & 10101 \times 3003 + 3003 \times 10101 &= 30333303 + 30333303 := \mathbf{60666606} \\
10001 \times 1313 + 3131 \times 10001 &= 13131313 + 31313131 := \mathbf{44444444} & 30303 \times 1001 + 1001 \times 30303 &= 30333303 + 30333303 := \mathbf{60666606} \\
10001 \times 2132 + 2312 \times 10001 &= 21322132 + 23122312 := \mathbf{44444444} & 10001 \times 3013 + 3103 \times 10001 &= 30133013 + 31033103 := \mathbf{61166116} \\
10003 \times 1111 + 1111 \times 30001 &= 11113333 + 33331111 := \mathbf{44444444} & 10001 \times 3023 + 3203 \times 10001 &= 30233023 + 32033203 := \mathbf{62266226} \\
20102 \times 1111 + 1111 \times 20102 &= 22333322 + 22333322 := \mathbf{44666644} & 10001 \times 3113 + 3113 \times 10001 &= 31133113 + 31133113 := \mathbf{62266226} \\
10001 \times 1233 + 3321 \times 10001 &= 12331233 + 33213321 := \mathbf{45544554} & 10001 \times 3033 + 3303 \times 10001 &= 30333033 + 33033303 := \mathbf{63366336} \\
10001 \times 1323 + 3231 \times 10001 &= 13231323 + 32313231 := \mathbf{45544554} & 10001 \times 3123 + 3213 \times 10001 &= 31233123 + 32133213 := \mathbf{63366336} \\
10001 \times 2232 + 2322 \times 10001 &= 22322232 + 23222322 := \mathbf{45544554} & 30003 \times 1011 + 1101 \times 30003 &= 30333033 + 33033303 := \mathbf{63366336} \\
20012 \times 1111 + 1111 \times 21002 &= 22233332 + 23333222 := \mathbf{45566554} & 10001 \times 3133 + 3313 \times 10001 &= 31333133 + 33133313 := \mathbf{64466446} \\
10001 \times 1333 + 3331 \times 10001 &= 13331333 + 33313331 := \mathbf{46644664} & 10001 \times 3223 + 3223 \times 10001 &= 32233223 + 32233223 := \mathbf{64466446} \\
10001 \times 2332 + 2332 \times 10001 &= 23322332 + 23322332 := \mathbf{46644664} & 10001 \times 3233 + 3323 \times 10001 &= 32333233 + 33233323 := \mathbf{65566556} \\
10001 \times 2003 + 3002 \times 10001 &= 20032003 + 30023002 := \mathbf{50055005} & 10001 \times 3333 + 3333 \times 10001 &= 33333333 + 33333333 := \mathbf{66666666} \\
20003 \times 1001 + 1001 \times 30002 &= 20023003 + 30032002 := \mathbf{50055005} & 30003 \times 1111 + 1111 \times 30003 &= 33333333 + 33333333 := \mathbf{66666666} \\
30102 \times 1001 + 1001 \times 20103 &= 30132102 + 20123103 := \mathbf{50255205} & & \\
20203 \times 1001 + 1001 \times 30202 &= 20223203 + 30232202 := \mathbf{50455405} & & \\
10101 \times 2003 + 3002 \times 10101 &= 20232303 + 30323202 := \mathbf{50555505} & & \\
20303 \times 1001 + 1001 \times 30302 &= 20323303 + 30332302 := \mathbf{50655605} & & \\
20013 \times 1001 + 1001 \times 31002 &= 20033013 + 31033002 := \mathbf{51066015} & & \\
10001 \times 2013 + 3102 \times 10001 &= 20132013 + 31023102 := \mathbf{51155115} & & \\
10001 \times 2103 + 3012 \times 10001 &= 21032103 + 30123012 := \mathbf{51155115} & & \\
20113 \times 1001 + 1001 \times 31102 &= 20133113 + 31133102 := \mathbf{51266215} & & \\
20213 \times 1001 + 1001 \times 31202 &= 20233213 + 31233202 := \mathbf{51466415} & & \\
10101 \times 2013 + 3102 \times 10101 &= 20333313 + 31333302 := \mathbf{51666615} & & \\
20313 \times 1001 + 1001 \times 31302 &= 20333313 + 31333302 := \mathbf{51666615} & & \\
10001 \times 2023 + 3202 \times 10001 &= 20232023 + 32023202 := \mathbf{52255225} & & \\
10001 \times 2113 + 3112 \times 10001 &= 21132113 + 31123112 := \mathbf{52255225} & & \\
10001 \times 2203 + 3022 \times 10001 &= 22032203 + 30223022 := \mathbf{52255225} & & \\
20003 \times 1101 + 1011 \times 30002 &= 22023303 + 30332022 := \mathbf{52355325} & & \\
20003 \times 1011 + 1101 \times 30002 &= 20223033 + 33032202 := \mathbf{53255235} & & \\
10001 \times 2033 + 3302 \times 10001 &= 20332033 + 33023302 := \mathbf{53355335} & & \\
10101 \times 10101 + 10101 \times 10101 &= 102030201 + 102030201 := \mathbf{204060402} & & \\
10301 \times 10001 + 10001 \times 10301 &= 103020301 + 103020301 := \mathbf{206040602} & & \\
10111 \times 10101 + 10101 \times 11101 &= 102131211 + 112131201 := \mathbf{214262412} & & \\
10311 \times 10001 + 10001 \times 11301 &= 103120311 + 113021301 := \mathbf{216141612} & & \\
10301 \times 10011 + 11001 \times 10301 &= 103123311 + 113321301 := \mathbf{216444612} & & \\
11001 \times 10011 + 11001 \times 10011 &= 110131011 + 110131011 := \mathbf{220262022} & & \\
11001 \times 10111 + 11101 \times 10011 &= 111231111 + 111132111 := \mathbf{222363222} & & \\
10121 \times 10101 + 10101 \times 12101 &= 102232221 + 122232201 := \mathbf{224464422} & & \\
11001 \times 10211 + 11201 \times 10011 &= 112331211 + 112133211 := \mathbf{224464422} & & \\
11111 \times 10101 + 10101 \times 11111 &= 112232211 + 112232211 := \mathbf{224464422} & & \\
11011 \times 10201 + 10201 \times 11011 &= 112323211 + 112323211 := \mathbf{224646422} & & \\
10211 \times 10011 + 11001 \times 11201 &= 102223221 + 123222201 := \mathbf{225444522} & & \\
10111 \times 10111 + 11101 \times 11101 &= 102233221 + 123232201 := \mathbf{225464522} & & \\
10321 \times 10001 + 10001 \times 12301 &= 103220321 + 123022301 := \mathbf{226242622} & & \\
11311 \times 10001 + 10001 \times 11311 &= 113121311 + 113121311 := \mathbf{226242622} & & \\
10031 \times 10001 + 10001 \times 13001 &= 100320031 + 130023001 := \mathbf{230343032} & & \\
11011 \times 10011 + 11001 \times 11011 &= 110231121 + 121132011 := \mathbf{231363132} & & \\
10021 \times 10011 + 11001 \times 12001 &= 100320231 + 132023001 := \mathbf{232343232} & &
\end{aligned}$$

$10131 \times 10001 + 10001 \times 13101 = 101320131 + 131023101 := 232343232$
 $10101 \times 10031 + 13001 \times 10101 = 101323131 + 131323101 := 232646232$
 $11021 \times 10101 + 10101 \times 12011 = 111323121 + 121323111 := 232646232$
 $11111 \times 10011 + 11001 \times 11111 = 111232221 + 122232111 := 233464332$
 $11011 \times 10111 + 11101 \times 11011 = 111332221 + 122233111 := 233565332$
 $10231 \times 10001 + 10001 \times 13201 = 102320231 + 132023201 := 234343432$
 $10121 \times 10011 + 11001 \times 12101 = 101321331 + 133123101 := 234444432$
 $10111 \times 10021 + 12001 \times 11101 = 101322331 + 133223101 := 234545432$
 $10131 \times 10101 + 10101 \times 13101 = 102333231 + 132333201 := 234666432$
 $11121 \times 10101 + 10101 \times 12111 = 112333221 + 122333211 := 234666432$
 $11211 \times 10011 + 11001 \times 11211 = 112233321 + 123332211 := 235565532$
 $10331 \times 10001 + 10001 \times 13301 = 103320331 + 133023301 := 236343632$
 $11321 \times 10001 + 10001 \times 12311 = 113221321 + 123122311 := 236343632$
 $11031 \times 10001 + 10001 \times 13011 = 110321031 + 130123011 := 240444042$
 $11131 \times 10001 + 10001 \times 13111 = 111321131 + 131123111 := 242444242$
 $11021 \times 10011 + 11001 \times 12011 = 110331231 + 132133011 := 242464242$
 $11231 \times 10001 + 10001 \times 13211 = 112321231 + 132123211 := 244444442$
 $11121 \times 10011 + 11001 \times 12111 = 111332331 + 133233111 := 244565442$
 $11331 \times 10001 + 10001 \times 13311 = 113321331 + 133123311 := 246444642$
 $12321 \times 10001 + 10001 \times 12321 = 123222321 + 123222321 := 246444642$
 $12031 \times 10001 + 10001 \times 13021 = 120322031 + 130223021 := 250545052$
 $12131 \times 10001 + 10001 \times 13121 = 121322131 + 131223121 := 252545252$
 $12231 \times 10001 + 10001 \times 13221 = 122322231 + 132223221 := 254545452$
 $12331 \times 10001 + 10001 \times 13321 = 123322331 + 133223321 := 256545652$
 $13031 \times 10001 + 10001 \times 13031 = 130323031 + 130323031 := 260646062$
 $13131 \times 10001 + 10001 \times 13131 = 131323131 + 131323131 := 262646262$
 $13231 \times 10001 + 10001 \times 13231 = 132323231 + 132323231 := 264646462$
 $13331 \times 10001 + 10001 \times 13331 = 133323331 + 133323331 := 266646662$
 $10002 \times 10001 + 10001 \times 20001 = 100030002 + 200030001 := 300060003$
 $10102 \times 10001 + 10001 \times 20101 = 101030102 + 201030101 := 302060203$
 $10101 \times 10002 + 20001 \times 10101 = 101030202 + 202030101 := 303060303$
 $10202 \times 10001 + 10001 \times 20201 = 102030202 + 202030201 := 304060403$
 $10302 \times 10001 + 10001 \times 20301 = 103030302 + 203030301 := 306060603$
 $10012 \times 10001 + 10001 \times 21001 = 100130012 + 210031001 := 310161013$
 $11002 \times 10001 + 10001 \times 20011 = 110031002 + 200130011 := 310161013$
 $11001 \times 10002 + 20001 \times 10011 = 110032002 + 200230011 := 310262013$
 $10112 \times 10001 + 10001 \times 21101 = 101130112 + 211031101 := 312161213$
 $11102 \times 10001 + 10001 \times 20111 = 111031102 + 201130111 := 312161213$
 $11001 \times 10102 + 20101 \times 10011 = 111132102 + 201231111 := 312363213$
 $10101 \times 10012 + 21001 \times 10101 = 101131212 + 212131101 := 313262313$
 $11002 \times 10101 + 10101 \times 20011 = 111131202 + 202131111 := 313262313$
 $11101 \times 10002 + 20001 \times 10111 = 111032202 + 202230111 := 313262313$
 $10212 \times 10001 + 10001 \times 21201 = 102130212 + 212031201 := 314161413$
 $11202 \times 10001 + 10001 \times 20211 = 112031202 + 202130211 := 314161413$
 $11001 \times 10202 + 20201 \times 10011 = 112232202 + 202232211 := 314464413$
 $10312 \times 10001 + 10001 \times 21301 = 103130312 + 213031301 := 316161613$
 $11302 \times 10001 + 10001 \times 20311 = 113031302 + 203130311 := 316161613$
 $11001 \times 10302 + 20301 \times 10011 = 113332302 + 203233311 := 316565613$
 $10011 \times 10002 + 20001 \times 11001 = 100130022 + 220031001 := 320161023$
 $10022 \times 10001 + 10001 \times 22001 = 100230022 + 220032001 := 320262023$
 $11012 \times 10001 + 10001 \times 21011 = 110131012 + 210131011 := 320262023$
 $12002 \times 10001 + 10001 \times 20021 = 120032002 + 200230021 := 320262023$
 $11002 \times 11001 + 10011 \times 20011 = 121033002 + 200330121 := 321363123$
 $10102 \times 10011 + 11001 \times 20101 = 101131122 + 221131101 := 322262223$
 $10122 \times 10001 + 10001 \times 22101 = 101230122 + 221032101 := 322262223$
 $11112 \times 10001 + 10001 \times 21111 = 111131112 + 211131111 := 322262223$
 $12102 \times 10001 + 10001 \times 20121 = 121032102 + 201230121 := 322262223$
 $10111 \times 10002 + 20001 \times 11101 = 101130222 + 222031101 := 323161323$
 $10101 \times 10022 + 22001 \times 10101 = 101232222 + 222232101 := 323464323$
 $11012 \times 10101 + 10101 \times 21011 = 111232212 + 212232111 := 323464323$
 $11102 \times 11001 + 10011 \times 20111 = 122133102 + 201331221 := 323464323$
 $12002 \times 10101 + 10101 \times 20021 = 121232202 + 202232121 := 323464323$
 $10222 \times 10001 + 10001 \times 22201 = 102230222 + 222032201 := 324262423$
 $11212 \times 10001 + 10001 \times 21211 = 112131212 + 212131211 := 324262423$
 $12202 \times 10001 + 10001 \times 20221 = 122032202 + 202230221 := 324262423$
 $10202 \times 10011 + 11001 \times 20201 = 102132222 + 222231201 := 324363423$
 $11101 \times 11002 + 20011 \times 10111 = 122133202 + 202331221 := 324464423$
 $11202 \times 11001 + 10011 \times 20211 = 123233202 + 202332321 := 325565523$
 $10322 \times 10001 + 10001 \times 22301 = 103230322 + 223032301 := 326262623$
 $11312 \times 10001 + 10001 \times 21311 = 113131312 + 213131311 := 326262623$
 $12302 \times 10001 + 10001 \times 20321 = 123032302 + 203230321 := 326262623$
 $22301 \times 10001 + 10001 \times 10322 = 223032301 + 103230322 := 326262623$
 $10302 \times 10011 + 11001 \times 20301 = 103133322 + 223331301 := 326464623$
 $10032 \times 10001 + 10001 \times 23001 = 100330032 + 230033001 := 330363033$
 $11011 \times 10002 + 20001 \times 11011 = 110132022 + 220231011 := 330363033$
 $11022 \times 10001 + 10001 \times 22011 = 110231022 + 220132011 := 330363033$
 $12012 \times 10001 + 10001 \times 21021 = 120132012 + 210231021 := 330363033$
 $13002 \times 10001 + 10001 \times 20031 = 130033002 + 200330031 := 330363033$
 $10012 \times 10011 + 11001 \times 21001 = 100230132 + 231032001 := 331262133$
 $10132 \times 10001 + 10001 \times 23101 = 101330132 + 231033101 := 332363233$
 $11122 \times 10001 + 10001 \times 22111 = 111231122 + 221132111 := 332363233$
 $12112 \times 10001 + 10001 \times 21121 = 121132112 + 211231121 := 332363233$
 $13102 \times 10001 + 10001 \times 20131 = 131033102 + 201330131 := 332363233$
 $11011 \times 10102 + 20101 \times 11011 = 111233122 + 221332111 := 332565233$
 $10112 \times 10011 + 11001 \times 21101 = 101231232 + 232132101 := 333363333$
 $11111 \times 10002 + 20001 \times 11111 = 111132222 + 222231111 := 333363333$
 $10101 \times 10032 + 23001 \times 10101 = 101333232 + 232333101 := 333666333$
 $11022 \times 10101 + 10101 \times 22011 = 111333222 + 222333111 := 333666333$
 $12012 \times 10101 + 10101 \times 21021 = 121333212 + 212333121 := 333666333$
 $13002 \times 10101 + 10101 \times 20031 = 131333202 + 202333131 := 333666333$
 $10111 \times 10012 + 21001 \times 11101 = 101231332 + 233132101 := 334363433$
 $10232 \times 10001 + 10001 \times 23201 = 102330232 + 232033201 := 334363433$
 $11222 \times 10001 + 10001 \times 22211 = 112231222 + 222132211 := 334363433$
 $12212 \times 10001 + 10001 \times 21221 = 122132212 + 212231221 := 334363433$
 $13202 \times 10001 + 10001 \times 20231 = 132033202 + 202330231 := 334363433$
 $10212 \times 10011 + 11001 \times 21201 = 102232332 + 233232201 := 335464533$

$$\begin{aligned}
10332 \times 10001 + 10001 \times 23301 &= 103330332 + 233033301 := \mathbf{336363633} \\
11322 \times 10001 + 10001 \times 22311 &= 113231322 + 223132311 := \mathbf{336363633} \\
12312 \times 10001 + 10001 \times 21321 &= 123132312 + 213231321 := \mathbf{336363633} \\
13302 \times 10001 + 10001 \times 20331 &= 133033302 + 203330331 := \mathbf{336363633} \\
11032 \times 10001 + 10001 \times 23011 &= 110331032 + 230133011 := \mathbf{340464043} \\
12022 \times 10001 + 10001 \times 22021 &= 120232022 + 220232021 := \mathbf{340464043} \\
13012 \times 10001 + 10001 \times 21031 &= 130133012 + 210331031 := \mathbf{340464043} \\
11132 \times 10001 + 10001 \times 23111 &= 111331132 + 231133111 := \mathbf{342464243} \\
12122 \times 10001 + 10001 \times 22121 &= 121232122 + 221232121 := \mathbf{342464243} \\
13112 \times 10001 + 10001 \times 21131 &= 131133112 + 211331131 := \mathbf{342464243} \\
11232 \times 10001 + 10001 \times 23211 &= 112331232 + 232133211 := \mathbf{344464443} \\
12222 \times 10001 + 10001 \times 22221 &= 122232222 + 222232221 := \mathbf{344464443} \\
13212 \times 10001 + 10001 \times 21231 &= 132133212 + 212331231 := \mathbf{344464443} \\
11332 \times 10001 + 10001 \times 23311 &= 113331332 + 233133311 := \mathbf{346464643} \\
12322 \times 10001 + 10001 \times 22321 &= 123232322 + 223232321 := \mathbf{346464643}
\end{aligned}$$

$$\begin{aligned}
13312 \times 10001 + 10001 \times 21331 &= 133133312 + 213331331 := \mathbf{346464643} \\
12032 \times 10001 + 10001 \times 23021 &= 120332032 + 230233021 := \mathbf{350565053} \\
13022 \times 10001 + 10001 \times 22031 &= 130233022 + 220332031 := \mathbf{350565053} \\
12132 \times 10001 + 10001 \times 23121 &= 121332132 + 231233121 := \mathbf{352565253} \\
13122 \times 10001 + 10001 \times 22131 &= 131233122 + 221332131 := \mathbf{352565253} \\
12232 \times 10001 + 10001 \times 23221 &= 122332232 + 232233221 := \mathbf{354565453} \\
13222 \times 10001 + 10001 \times 22231 &= 132233222 + 222332231 := \mathbf{354565453} \\
12332 \times 10001 + 10001 \times 23321 &= 123332332 + 233233321 := \mathbf{356565653} \\
13322 \times 10001 + 10001 \times 22331 &= 133233322 + 223332331 := \mathbf{356565653} \\
13032 \times 10001 + 10001 \times 23031 &= 130333032 + 230333031 := \mathbf{360666063} \\
13132 \times 10001 + 10001 \times 23131 &= 131333132 + 231333131 := \mathbf{362666263} \\
13232 \times 10001 + 10001 \times 23231 &= 132333232 + 232333231 := \mathbf{364666463} \\
13332 \times 10001 + 10001 \times 23331 &= 133333332 + 233333331 := \mathbf{366666663}
\end{aligned}$$

4.4 Digits 0, 1, 2, 3 and 4

Below are examples of **palindromic-type expressions** with digits 0, 1, 2, 3 and 4 on both sides of the expression. In this case the final sum in each case is palindrome.

$$\begin{aligned}
102 \times 21 + 12 \times 201 &= 2142 + 2412 := \mathbf{4554} \\
102 \times 12 + 21 \times 201 &= 1224 + 4221 := \mathbf{5445} \\
101 \times 14 + 41 \times 101 &= 1414 + 4141 := \mathbf{5555} \\
104 \times 11 + 11 \times 401 &= 1144 + 4411 := \mathbf{5555} \\
101 \times 24 + 42 \times 101 &= 2424 + 4242 := \mathbf{6666} \\
102 \times 22 + 22 \times 201 &= 2244 + 4422 := \mathbf{6666} \\
202 \times 12 + 21 \times 202 &= 2424 + 4242 := \mathbf{6666} \\
204 \times 11 + 11 \times 402 &= 2244 + 4422 := \mathbf{6666} \\
101 \times 34 + 43 \times 101 &= 3434 + 4343 := \mathbf{7777} \\
304 \times 11 + 11 \times 403 &= 3344 + 4433 := \mathbf{7777} \\
101 \times 44 + 44 \times 101 &= 4444 + 4444 := \mathbf{8888} \\
202 \times 22 + 22 \times 202 &= 4444 + 4444 := \mathbf{8888} \\
404 \times 11 + 11 \times 404 &= 4444 + 4444 := \mathbf{8888} \\
1031 \times 11 + 11 \times 1301 &= 11341 + 14311 := \mathbf{25652} \\
1022 \times 11 + 11 \times 2201 &= 11242 + 24211 := \mathbf{35453} \\
1021 \times 21 + 12 \times 1201 &= 21441 + 14412 := \mathbf{35853} \\
1302 \times 11 + 11 \times 2031 &= 14322 + 22341 := \mathbf{36663} \\
1002 \times 21 + 12 \times 2001 &= 21042 + 24012 := \mathbf{45054} \\
1013 \times 11 + 11 \times 3101 &= 11143 + 34111 := \mathbf{45254} \\
1011 \times 31 + 13 \times 1101 &= 31341 + 14313 := \mathbf{45654} \\
1011 \times 22 + 22 \times 1101 &= 22242 + 24222 := \mathbf{46464} \\
2022 \times 11 + 11 \times 2202 &= 22242 + 24222 := \mathbf{46464} \\
1011 \times 13 + 13 \times 1101 &= 13143 + 34131 := \mathbf{47274}
\end{aligned}$$

$$\begin{aligned}
1102 \times 21 + 12 \times 2011 &= 23142 + 24132 := \mathbf{47274} \\
1303 \times 11 + 11 \times 3031 &= 14333 + 33341 := \mathbf{47674} \\
1002 \times 12 + 21 \times 2001 &= 12024 + 42021 := \mathbf{54045} \\
1001 \times 14 + 41 \times 1001 &= 14014 + 41041 := \mathbf{55055} \\
1004 \times 11 + 11 \times 4001 &= 11044 + 44011 := \mathbf{55055} \\
1102 \times 12 + 21 \times 2011 &= 13224 + 42231 := \mathbf{55455} \\
1012 \times 12 + 21 \times 2101 &= 12144 + 44121 := \mathbf{56265} \\
1104 \times 11 + 11 \times 4011 &= 12144 + 44121 := \mathbf{56265} \\
2013 \times 11 + 11 \times 3102 &= 22143 + 34122 := \mathbf{56265} \\
1202 \times 12 + 21 \times 2021 &= 14424 + 42441 := \mathbf{56865} \\
1204 \times 11 + 11 \times 4021 &= 13244 + 44231 := \mathbf{57475} \\
2203 \times 11 + 11 \times 3022 &= 24233 + 33242 := \mathbf{57475} \\
1304 \times 11 + 11 \times 4031 &= 14344 + 44341 := \mathbf{58685} \\
1001 \times 24 + 42 \times 1001 &= 24024 + 42042 := \mathbf{66066} \\
1002 \times 22 + 22 \times 2001 &= 22044 + 44022 := \mathbf{66066} \\
2002 \times 12 + 21 \times 2002 &= 24024 + 42042 := \mathbf{66066} \\
2004 \times 11 + 11 \times 4002 &= 22044 + 44022 := \mathbf{66066} \\
2104 \times 11 + 11 \times 4012 &= 23144 + 44132 := \mathbf{67276} \\
3013 \times 11 + 11 \times 3103 &= 33143 + 34133 := \mathbf{67276} \\
2012 \times 12 + 21 \times 2102 &= 24144 + 44142 := \mathbf{68286} \\
1102 \times 22 + 22 \times 2011 &= 24244 + 44242 := \mathbf{68486} \\
2204 \times 11 + 11 \times 4022 &= 24244 + 44242 := \mathbf{68486} \\
1001 \times 34 + 43 \times 1001 &= 34034 + 43043 := \mathbf{77077}
\end{aligned}$$

$$\begin{aligned}
3004 \times 11 + 11 \times 4003 &= 33044 + 44033 := \mathbf{77077} & 10111 \times 31 + 13 \times 11101 &= 313441 + 144313 := \mathbf{457754} \\
3104 \times 11 + 11 \times 4013 &= 34144 + 44143 := \mathbf{78287} & 10313 \times 11 + 11 \times 31301 &= 113443 + 344311 := \mathbf{457754} \\
1001 \times 44 + 44 \times 1001 &= 44044 + 44044 := \mathbf{88088} & 11303 \times 11 + 11 \times 30311 &= 124333 + 333421 := \mathbf{457754} \\
2002 \times 22 + 22 \times 2002 &= 44044 + 44044 := \mathbf{88088} & 20312 \times 11 + 11 \times 21302 &= 223432 + 234322 := \mathbf{457754} \\
4004 \times 11 + 11 \times 4004 &= 44044 + 44044 := \mathbf{88088} & 10011 \times 22 + 22 \times 11001 &= 220242 + 242022 := \mathbf{462264} \\
10401 \times 11 + 11 \times 10401 &= 114411 + 114411 := \mathbf{228822} & 11013 \times 11 + 11 \times 31011 &= 121143 + 341121 := \mathbf{462264} \\
10311 \times 11 + 11 \times 11301 &= 113421 + 124311 := \mathbf{237732} & 20022 \times 11 + 11 \times 22002 &= 220242 + 242022 := \mathbf{462264} \\
10221 \times 11 + 11 \times 12201 &= 112431 + 134211 := \mathbf{246642} & 20122 \times 11 + 11 \times 22102 &= 221342 + 243122 := \mathbf{464464} \\
10031 \times 11 + 11 \times 13001 &= 110341 + 143011 := \mathbf{253352} & 10111 \times 22 + 22 \times 11101 &= 222442 + 244222 := \mathbf{466664} \\
10131 \times 11 + 11 \times 13101 &= 111441 + 144111 := \mathbf{255552} & 12203 \times 11 + 11 \times 30221 &= 134233 + 332431 := \mathbf{466664} \\
11031 \times 11 + 11 \times 13011 &= 121341 + 143121 := \mathbf{264462} & 20222 \times 11 + 11 \times 22202 &= 222442 + 244222 := \mathbf{466664} \\
12031 \times 11 + 11 \times 13021 &= 132341 + 143231 := \mathbf{275572} & 10011 \times 13 + 31 \times 11001 &= 130143 + 341031 := \mathbf{471174} \\
13031 \times 11 + 11 \times 13031 &= 143341 + 143341 := \mathbf{286682} & 11002 \times 21 + 12 \times 20011 &= 231042 + 240132 := \mathbf{471174} \\
10201 \times 12 + 21 \times 10201 &= 122412 + 214221 := \mathbf{336633} & 12013 \times 11 + 11 \times 31021 &= 132143 + 341231 := \mathbf{473374} \\
10402 \times 11 + 11 \times 20401 &= 114422 + 224411 := \mathbf{338833} & 13003 \times 11 + 11 \times 30031 &= 143033 + 330341 := \mathbf{473374} \\
10312 \times 11 + 11 \times 21301 &= 113432 + 234311 := \mathbf{347743} & 21022 \times 11 + 11 \times 22012 &= 231242 + 242132 := \mathbf{473374} \\
11302 \times 11 + 11 \times 20311 &= 124322 + 223421 := \mathbf{347743} & 11102 \times 21 + 12 \times 20111 &= 233142 + 241332 := \mathbf{474474} \\
10211 \times 21 + 12 \times 11201 &= 214431 + 134412 := \mathbf{348843} & 10111 \times 13 + 31 \times 11101 &= 131443 + 344131 := \mathbf{475574} \\
10022 \times 11 + 11 \times 22001 &= 110242 + 242011 := \mathbf{352253} & 13103 \times 11 + 11 \times 30131 &= 144133 + 331441 := \mathbf{475574} \\
10021 \times 21 + 12 \times 12001 &= 210441 + 144012 := \mathbf{354453} & 11011 \times 13 + 31 \times 11011 &= 143143 + 341341 := \mathbf{484484} \\
10122 \times 11 + 11 \times 22101 &= 111342 + 243111 := \mathbf{354453} & 11011 \times 22 + 22 \times 11011 &= 242242 + 242242 := \mathbf{484484} \\
10222 \times 11 + 11 \times 22201 &= 112442 + 244211 := \mathbf{356653} & 13013 \times 11 + 11 \times 31031 &= 143143 + 341341 := \mathbf{484484} \\
12202 \times 11 + 11 \times 20221 &= 134222 + 222431 := \mathbf{356653} & 22022 \times 11 + 11 \times 22022 &= 242242 + 242242 := \mathbf{484484} \\
11022 \times 11 + 11 \times 22011 &= 121242 + 242121 := \mathbf{363363} & 10002 \times 12 + 21 \times 20001 &= 120024 + 420021 := \mathbf{540045} \\
13002 \times 11 + 11 \times 20031 &= 143022 + 220341 := \mathbf{363363} & 10102 \times 12 + 21 \times 20101 &= 121224 + 422121 := \mathbf{543345} \\
13102 \times 11 + 11 \times 20131 &= 144122 + 221441 := \mathbf{365563} & 10202 \times 12 + 21 \times 20201 &= 122424 + 424221 := \mathbf{546645} \\
12022 \times 11 + 11 \times 22021 &= 132242 + 242231 := \mathbf{374473} & 10001 \times 14 + 41 \times 10001 &= 140014 + 410041 := \mathbf{550055} \\
13012 \times 11 + 11 \times 21031 &= 143132 + 231341 := \mathbf{374473} & 10004 \times 11 + 11 \times 40001 &= 110044 + 440011 := \mathbf{550055} \\
11021 \times 21 + 12 \times 12011 &= 231441 + 144132 := \mathbf{375573} & 10104 \times 11 + 11 \times 40101 &= 111144 + 441111 := \mathbf{552255} \\
13022 \times 11 + 11 \times 22031 &= 143242 + 242341 := \mathbf{385583} & 11002 \times 12 + 21 \times 20011 &= 132024 + 420231 := \mathbf{552255} \\
10201 \times 22 + 22 \times 10201 &= 224422 + 224422 := \mathbf{448844} & 10204 \times 11 + 11 \times 40201 &= 112244 + 442211 := \mathbf{554455} \\
10403 \times 11 + 11 \times 30401 &= 114433 + 334411 := \mathbf{448844} & 10101 \times 14 + 41 \times 10101 &= 141414 + 414141 := \mathbf{555555} \\
20402 \times 11 + 11 \times 20402 &= 224422 + 224422 := \mathbf{448844} & 11102 \times 12 + 21 \times 20111 &= 133224 + 422331 := \mathbf{555555} \\
10002 \times 21 + 12 \times 20001 &= 210042 + 240012 := \mathbf{450054} & 10304 \times 11 + 11 \times 40301 &= 113344 + 443311 := \mathbf{556655} \\
10013 \times 11 + 11 \times 31001 &= 110143 + 341011 := \mathbf{451154} & 10404 \times 11 + 11 \times 40401 &= 114444 + 444411 := \mathbf{558855} \\
10011 \times 31 + 13 \times 11001 &= 310341 + 143013 := \mathbf{453354} & 11202 \times 12 + 21 \times 20211 &= 134424 + 424431 := \mathbf{558855} \\
10102 \times 21 + 12 \times 20101 &= 212142 + 241212 := \mathbf{453354} & 20403 \times 11 + 11 \times 30402 &= 224433 + 334422 := \mathbf{558855} \\
10113 \times 11 + 11 \times 31101 &= 111243 + 342111 := \mathbf{453354} & 10012 \times 12 + 21 \times 21001 &= 120144 + 441021 := \mathbf{561165} \\
10213 \times 11 + 11 \times 31201 &= 112343 + 343211 := \mathbf{455554} & 11004 \times 11 + 11 \times 40011 &= 121044 + 440121 := \mathbf{561165} \\
10202 \times 21 + 12 \times 20201 &= 214242 + 242412 := \mathbf{456654} & 20013 \times 11 + 11 \times 31002 &= 220143 + 341022 := \mathbf{561165} \\
& & 11104 \times 11 + 11 \times 40111 &= 122144 + 441221 := \mathbf{563365}
\end{aligned}$$

$20113 \times 11 + 11 \times 31102 = 221243 + 342122 := \mathbf{563365}$
 $10112 \times 12 + 21 \times 21101 = 121344 + 443121 := \mathbf{564465}$
 $12002 \times 12 + 21 \times 20021 = 144024 + 420441 := \mathbf{564465}$
 $11204 \times 11 + 11 \times 40211 = 123244 + 442321 := \mathbf{565565}$
 $20213 \times 11 + 11 \times 31202 = 222343 + 343222 := \mathbf{565565}$
 $11304 \times 11 + 11 \times 40311 = 124344 + 443421 := \mathbf{567765}$
 $20313 \times 11 + 11 \times 31302 = 223443 + 344322 := \mathbf{567765}$
 $21303 \times 11 + 11 \times 30312 = 234333 + 333432 := \mathbf{567765}$
 $12004 \times 11 + 11 \times 40021 = 132044 + 440231 := \mathbf{572275}$
 $21013 \times 11 + 11 \times 31012 = 231143 + 341132 := \mathbf{572275}$
 $22003 \times 11 + 11 \times 30022 = 242033 + 330242 := \mathbf{572275}$
 $11012 \times 12 + 21 \times 21011 = 132144 + 441231 := \mathbf{573375}$
 $12104 \times 11 + 11 \times 40121 = 133144 + 441331 := \mathbf{574475}$
 $22103 \times 11 + 11 \times 30122 = 243133 + 331342 := \mathbf{574475}$
 $12204 \times 11 + 11 \times 40221 = 134244 + 442431 := \mathbf{576675}$
 $22203 \times 11 + 11 \times 30222 = 244233 + 332442 := \mathbf{576675}$
 $13004 \times 11 + 11 \times 40031 = 143044 + 440341 := \mathbf{583385}$
 $22013 \times 11 + 11 \times 31022 = 242143 + 341242 := \mathbf{583385}$
 $12012 \times 12 + 21 \times 21021 = 144144 + 441441 := \mathbf{585585}$
 $13104 \times 11 + 11 \times 40131 = 144144 + 441441 := \mathbf{585585}$
 $10001 \times 24 + 42 \times 10001 = 240024 + 420042 := \mathbf{660066}$
 $10002 \times 22 + 22 \times 20001 = 220044 + 440022 := \mathbf{660066}$
 $20002 \times 12 + 21 \times 20002 = 240024 + 420042 := \mathbf{660066}$
 $20004 \times 11 + 11 \times 40002 = 220044 + 440022 := \mathbf{660066}$
 $20104 \times 11 + 11 \times 40102 = 221144 + 441122 := \mathbf{662266}$
 $20102 \times 12 + 21 \times 20102 = 241224 + 422142 := \mathbf{663366}$
 $10102 \times 22 + 22 \times 20101 = 222244 + 442222 := \mathbf{664466}$
 $20204 \times 11 + 11 \times 40202 = 222244 + 442222 := \mathbf{664466}$
 $10101 \times 24 + 42 \times 10101 = 242424 + 424242 := \mathbf{666666}$
 $20202 \times 12 + 21 \times 20202 = 242424 + 424242 := \mathbf{666666}$
 $20304 \times 11 + 11 \times 40302 = 223344 + 443322 := \mathbf{666666}$
 $10202 \times 22 + 22 \times 20201 = 224444 + 444422 := \mathbf{668866}$
 $20404 \times 11 + 11 \times 40402 = 224444 + 444422 := \mathbf{668866}$
 $30403 \times 11 + 11 \times 30403 = 334433 + 334433 := \mathbf{668866}$
 $21004 \times 11 + 11 \times 40012 = 231044 + 440132 := \mathbf{671176}$
 $30013 \times 11 + 11 \times 31003 = 330143 + 341033 := \mathbf{671176}$
 $21104 \times 11 + 11 \times 40112 = 232144 + 441232 := \mathbf{673376}$
 $30113 \times 11 + 11 \times 31103 = 331243 + 342133 := \mathbf{673376}$
 $21204 \times 11 + 11 \times 40212 = 233244 + 442332 := \mathbf{675576}$
 $30213 \times 11 + 11 \times 31203 = 332343 + 343233 := \mathbf{675576}$
 $21304 \times 11 + 11 \times 40312 = 234344 + 443432 := \mathbf{677776}$

$30313 \times 11 + 11 \times 31303 = 333443 + 344333 := \mathbf{677776}$
 $20012 \times 12 + 21 \times 21002 = 240144 + 441042 := \mathbf{681186}$
 $11002 \times 22 + 22 \times 20011 = 242044 + 440242 := \mathbf{682286}$
 $22004 \times 11 + 11 \times 40022 = 242044 + 440242 := \mathbf{682286}$
 $31013 \times 11 + 11 \times 31013 = 341143 + 341143 := \mathbf{682286}$
 $20112 \times 12 + 21 \times 21102 = 241344 + 443142 := \mathbf{684486}$
 $22104 \times 11 + 11 \times 40122 = 243144 + 441342 := \mathbf{684486}$
 $11102 \times 22 + 22 \times 20111 = 244244 + 442442 := \mathbf{686686}$
 $22204 \times 11 + 11 \times 40222 = 244244 + 442442 := \mathbf{686686}$
 $10001 \times 34 + 43 \times 10001 = 340034 + 430043 := \mathbf{770077}$
 $30004 \times 11 + 11 \times 40003 = 330044 + 440033 := \mathbf{770077}$
 $30104 \times 11 + 11 \times 40103 = 331144 + 441133 := \mathbf{772277}$
 $30204 \times 11 + 11 \times 40203 = 332244 + 442233 := \mathbf{774477}$
 $30304 \times 11 + 11 \times 40303 = 333344 + 443333 := \mathbf{776677}$
 $10101 \times 34 + 43 \times 10101 = 343434 + 434343 := \mathbf{777777}$
 $30404 \times 11 + 11 \times 40403 = 334444 + 444433 := \mathbf{778877}$
 $31004 \times 11 + 11 \times 40013 = 341044 + 440143 := \mathbf{781187}$
 $31104 \times 11 + 11 \times 40113 = 342144 + 441243 := \mathbf{783387}$
 $31204 \times 11 + 11 \times 40213 = 343244 + 442343 := \mathbf{785587}$
 $31304 \times 11 + 11 \times 40313 = 344344 + 443443 := \mathbf{787787}$
 $10001 \times 44 + 44 \times 10001 = 440044 + 440044 := \mathbf{880088}$
 $20002 \times 22 + 22 \times 20002 = 440044 + 440044 := \mathbf{880088}$
 $40004 \times 11 + 11 \times 40004 = 440044 + 440044 := \mathbf{880088}$
 $40104 \times 11 + 11 \times 40104 = 441144 + 441144 := \mathbf{882288}$
 $20102 \times 22 + 22 \times 20102 = 442244 + 442244 := \mathbf{884488}$
 $40204 \times 11 + 11 \times 40204 = 442244 + 442244 := \mathbf{884488}$
 $40304 \times 11 + 11 \times 40304 = 443344 + 443344 := \mathbf{886688}$
 $10101 \times 44 + 44 \times 10101 = 444444 + 444444 := \mathbf{888888}$
 $20202 \times 22 + 22 \times 20202 = 444444 + 444444 := \mathbf{888888}$
 $40404 \times 11 + 11 \times 40404 = 444444 + 444444 := \mathbf{888888}$

$141 \times 101 + 101 \times 141 = 14241 + 14241 := \mathbf{28482}$
 $121 \times 102 + 201 \times 121 = 12342 + 24321 := \mathbf{36663}$
 $142 \times 101 + 101 \times 241 = 14342 + 24341 := \mathbf{38683}$
 $103 \times 101 + 101 \times 301 = 10403 + 30401 := \mathbf{40804}$
 $202 \times 101 + 101 \times 202 = 20402 + 20402 := \mathbf{40804}$
 $113 \times 101 + 101 \times 311 = 11413 + 31411 := \mathbf{42824}$
 $212 \times 101 + 101 \times 212 = 21412 + 21412 := \mathbf{42824}$
 $111 \times 103 + 301 \times 111 = 11433 + 33411 := \mathbf{44844}$
 $123 \times 101 + 101 \times 321 = 12423 + 32421 := \mathbf{44844}$
 $202 \times 111 + 111 \times 202 = 22422 + 22422 := \mathbf{44844}$

$$222 \times 101 + 101 \times 222 = 22422 + 22422 := \mathbf{44844}$$

$$133 \times 101 + 101 \times 331 = 13433 + 33431 := \mathbf{46864}$$

$$232 \times 101 + 101 \times 232 = 23432 + 23432 := \mathbf{46864}$$

$$143 \times 101 + 101 \times 341 = 14443 + 34441 := \mathbf{48884}$$

$$202 \times 121 + 121 \times 202 = 24442 + 24442 := \mathbf{48884}$$

$$242 \times 101 + 101 \times 242 = 24442 + 24442 := \mathbf{48884}$$

$$102 \times 102 + 201 \times 201 = 10404 + 40401 := \mathbf{50805}$$

$$112 \times 102 + 201 \times 211 = 11424 + 42411 := \mathbf{53835}$$

$$122 \times 102 + 201 \times 221 = 12444 + 44421 := \mathbf{56865}$$

$$1031 \times 101 + 101 \times 1301 = 104131 + 131401 := \mathbf{235532}$$

$$1131 \times 101 + 101 \times 1311 = 114231 + 132411 := \mathbf{246642}$$

$$1231 \times 101 + 101 \times 1321 = 124331 + 133421 := \mathbf{257752}$$

$$1031 \times 111 + 111 \times 1301 = 114441 + 144411 := \mathbf{258852}$$

$$1331 \times 101 + 101 \times 1331 = 134431 + 134431 := \mathbf{268862}$$

$$1011 \times 131 + 131 \times 1101 = 132441 + 144231 := \mathbf{276672}$$

$$1001 \times 141 + 141 \times 1001 = 141141 + 141141 := \mathbf{282282}$$

$$1202 \times 101 + 101 \times 2021 = 121402 + 204121 := \mathbf{325523}$$

$$1032 \times 101 + 101 \times 2301 = 104232 + 232401 := \mathbf{336633}$$

$$1212 \times 101 + 101 \times 2121 = 122412 + 214221 := \mathbf{336633}$$

$$1021 \times 102 + 201 \times 1201 = 104142 + 241401 := \mathbf{345543}$$

$$1132 \times 101 + 101 \times 2311 = 114332 + 233411 := \mathbf{347743}$$

$$1222 \times 101 + 101 \times 2221 = 123422 + 224321 := \mathbf{347743}$$

$$1011 \times 221 + 122 \times 1101 = 223431 + 134322 := \mathbf{357753}$$

$$1022 \times 111 + 111 \times 2201 = 113442 + 244311 := \mathbf{357753}$$

$$1121 \times 102 + 201 \times 1211 = 114342 + 243411 := \mathbf{357753}$$

$$1202 \times 111 + 111 \times 2021 = 133422 + 224331 := \mathbf{357753}$$

$$1232 \times 101 + 101 \times 2321 = 124432 + 234421 := \mathbf{358853}$$

$$1002 \times 121 + 121 \times 2001 = 121242 + 242121 := \mathbf{363363}$$

$$1011 \times 122 + 221 \times 1101 = 123342 + 243321 := \mathbf{366663}$$

$$1102 \times 121 + 121 \times 2011 = 133342 + 243331 := \mathbf{376673}$$

$$1001 \times 142 + 241 \times 1001 = 142142 + 241241 := \mathbf{383383}$$

$$1002 \times 201 + 102 \times 2001 = 201402 + 204102 := \mathbf{405504}$$

$$1103 \times 101 + 101 \times 3011 = 111403 + 304111 := \mathbf{415514}$$

$$1011 \times 301 + 103 \times 1101 = 304311 + 113403 := \mathbf{417714}$$

$$1012 \times 201 + 102 \times 2101 = 203412 + 214302 := \mathbf{417714}$$

$$1011 \times 202 + 202 \times 1101 = 204222 + 222402 := \mathbf{426624}$$

$$1113 \times 101 + 101 \times 3111 = 112413 + 314211 := \mathbf{426624}$$

$$2022 \times 101 + 101 \times 2202 = 204222 + 222402 := \mathbf{426624}$$

$$1002 \times 211 + 112 \times 2001 = 211422 + 224112 := \mathbf{435534}$$

$$1011 \times 103 + 301 \times 1101 = 104133 + 331401 := \mathbf{435534}$$

$$1033 \times 101 + 101 \times 3301 = 104333 + 333401 := \mathbf{437734}$$

$$1123 \times 101 + 101 \times 3211 = 113423 + 324311 := \mathbf{437734}$$

$$2122 \times 101 + 101 \times 2212 = 214322 + 223412 := \mathbf{437734}$$

$$1011 \times 311 + 113 \times 1101 = 314421 + 124413 := \mathbf{438834}$$

$$1011 \times 212 + 212 \times 1101 = 214332 + 233412 := \mathbf{447744}$$

$$1111 \times 103 + 301 \times 1111 = 114433 + 334411 := \mathbf{448844}$$

$$1111 \times 202 + 202 \times 1111 = 224422 + 224422 := \mathbf{448844}$$

$$1133 \times 101 + 101 \times 3311 = 114433 + 334411 := \mathbf{448844}$$

$$2222 \times 101 + 101 \times 2222 = 224422 + 224422 := \mathbf{448844}$$

$$1011 \times 113 + 311 \times 1101 = 114243 + 342411 := \mathbf{456654}$$

$$1013 \times 111 + 111 \times 3101 = 112443 + 344211 := \mathbf{456654}$$

$$1103 \times 111 + 111 \times 3011 = 122433 + 334221 := \mathbf{456654}$$

$$1002 \times 221 + 122 \times 2001 = 221442 + 244122 := \mathbf{465564}$$

$$1011 \times 222 + 222 \times 1101 = 224442 + 244422 := \mathbf{468864}$$

$$2022 \times 111 + 111 \times 2202 = 224442 + 244422 := \mathbf{468864}$$

$$1001 \times 143 + 341 \times 1001 = 143143 + 341341 := \mathbf{484484}$$

$$1001 \times 242 + 242 \times 1001 = 242242 + 242242 := \mathbf{484484}$$

$$2002 \times 121 + 121 \times 2002 = 242242 + 242242 := \mathbf{484484}$$

$$1002 \times 102 + 201 \times 2001 = 102204 + 402201 := \mathbf{504405}$$

$$1001 \times 104 + 401 \times 1001 = 104104 + 401401 := \mathbf{505505}$$

$$1004 \times 101 + 101 \times 4001 = 101404 + 404101 := \mathbf{505505}$$

$$1014 \times 101 + 101 \times 4101 = 102414 + 414201 := \mathbf{516615}$$

$$1102 \times 102 + 201 \times 2011 = 112404 + 404211 := \mathbf{516615}$$

$$2103 \times 101 + 101 \times 3012 = 212403 + 304212 := \mathbf{516615}$$

$$1001 \times 114 + 411 \times 1001 = 114114 + 411411 := \mathbf{525525}$$

$$1012 \times 102 + 201 \times 2101 = 103224 + 422301 := \mathbf{525525}$$

$$1024 \times 101 + 101 \times 4201 = 103424 + 424301 := \mathbf{527725}$$

$$2023 \times 101 + 101 \times 3202 = 204323 + 323402 := \mathbf{527725}$$

$$2113 \times 101 + 101 \times 3112 = 213413 + 314312 := \mathbf{527725}$$

$$1002 \times 112 + 211 \times 2001 = 112224 + 422211 := \mathbf{534435}$$

$$1112 \times 102 + 201 \times 2111 = 113424 + 424311 := \mathbf{537735}$$

$$1034 \times 101 + 101 \times 4301 = 104434 + 434401 := \mathbf{538835}$$

$$2123 \times 101 + 101 \times 3212 = 214423 + 324412 := \mathbf{538835}$$

$$1001 \times 124 + 421 \times 1001 = 124124 + 421421 := \mathbf{545545}$$

$$1022 \times 102 + 201 \times 2201 = 104244 + 442401 := \mathbf{546645}$$

$$1102 \times 112 + 211 \times 2011 = 123424 + 424321 := \mathbf{547745}$$

$$1004 \times 111 + 111 \times 4001 = 111444 + 444111 := \mathbf{555555}$$

$$1012 \times 112 + 211 \times 2101 = 113344 + 443311 := \mathbf{556655}$$

$$1122 \times 102 + 201 \times 2211 = 114444 + 444411 := \mathbf{558855}$$

$$1002 \times 122 + 221 \times 2001 = 122244 + 442221 := \mathbf{564465}$$

$$1001 \times 134 + 431 \times 1001 = 134134 + 431431 := \mathbf{565565}$$

$2013 \times 111 + 111 \times 3102 = 223443 + 344322 := \mathbf{567765}$
 $2103 \times 111 + 111 \times 3012 = 233433 + 334332 := \mathbf{567765}$
 $1102 \times 122 + 221 \times 2011 = 134444 + 444431 := \mathbf{578875}$
 $1001 \times 144 + 441 \times 1001 = 144144 + 441441 := \mathbf{585585}$
 $1001 \times 243 + 342 \times 1001 = 243243 + 342342 := \mathbf{585585}$
 $1001 \times 204 + 402 \times 1001 = 204204 + 402402 := \mathbf{606606}$
 $1002 \times 202 + 202 \times 2001 = 202404 + 404202 := \mathbf{606606}$
 $2002 \times 102 + 201 \times 2002 = 204204 + 402402 := \mathbf{606606}$
 $2004 \times 101 + 101 \times 4002 = 202404 + 404202 := \mathbf{606606}$
 $2014 \times 101 + 101 \times 4102 = 203414 + 414302 := \mathbf{617716}$
 $3013 \times 101 + 101 \times 3103 = 304313 + 313403 := \mathbf{617716}$
 $2012 \times 201 + 102 \times 2102 = 404412 + 214404 := \mathbf{618816}$
 $1001 \times 214 + 412 \times 1001 = 214214 + 412412 := \mathbf{626626}$
 $1012 \times 202 + 202 \times 2101 = 204424 + 424402 := \mathbf{628826}$
 $2024 \times 101 + 101 \times 4202 = 204424 + 424402 := \mathbf{628826}$
 $3113 \times 101 + 101 \times 3113 = 314413 + 314413 := \mathbf{628826}$
 $1002 \times 212 + 212 \times 2001 = 212424 + 424212 := \mathbf{636636}$
 $1001 \times 224 + 422 \times 1001 = 224224 + 422422 := \mathbf{646646}$
 $2002 \times 112 + 211 \times 2002 = 224224 + 422422 := \mathbf{646646}$
 $1001 \times 234 + 432 \times 1001 = 234234 + 432432 := \mathbf{666666}$
 $1002 \times 222 + 222 \times 2001 = 222444 + 444222 := \mathbf{666666}$
 $2004 \times 111 + 111 \times 4002 = 222444 + 444222 := \mathbf{666666}$
 $3013 \times 111 + 111 \times 3103 = 334443 + 344433 := \mathbf{678876}$
 $1001 \times 244 + 442 \times 1001 = 244244 + 442442 := \mathbf{686686}$
 $1001 \times 343 + 343 \times 1001 = 343343 + 343343 := \mathbf{686686}$
 $2002 \times 122 + 221 \times 2002 = 244244 + 442442 := \mathbf{686686}$
 $1001 \times 304 + 403 \times 1001 = 304304 + 403403 := \mathbf{707707}$
 $3004 \times 101 + 101 \times 4003 = 303404 + 404303 := \mathbf{707707}$
 $3014 \times 101 + 101 \times 4103 = 304414 + 414403 := \mathbf{718817}$
 $1001 \times 314 + 413 \times 1001 = 314314 + 413413 := \mathbf{727727}$
 $1001 \times 324 + 423 \times 1001 = 324324 + 423423 := \mathbf{747747}$
 $1001 \times 334 + 433 \times 1001 = 334334 + 433433 := \mathbf{767767}$
 $3004 \times 111 + 111 \times 4003 = 333444 + 444333 := \mathbf{777777}$
 $1001 \times 344 + 443 \times 1001 = 344344 + 443443 := \mathbf{787787}$
 $1001 \times 404 + 404 \times 1001 = 404404 + 404404 := \mathbf{808808}$
 $2002 \times 202 + 202 \times 2002 = 404404 + 404404 := \mathbf{808808}$
 $4004 \times 101 + 101 \times 4004 = 404404 + 404404 := \mathbf{808808}$
 $1001 \times 414 + 414 \times 1001 = 414414 + 414414 := \mathbf{828828}$
 $1001 \times 424 + 424 \times 1001 = 424424 + 424424 := \mathbf{848848}$
 $2002 \times 212 + 212 \times 2002 = 424424 + 424424 := \mathbf{848848}$
 $1001 \times 434 + 434 \times 1001 = 434434 + 434434 := \mathbf{868868}$

$1001 \times 444 + 444 \times 1001 = 444444 + 444444 := \mathbf{888888}$
 $2002 \times 222 + 222 \times 2002 = 444444 + 444444 := \mathbf{888888}$
 $4004 \times 111 + 111 \times 4004 = 444444 + 444444 := \mathbf{888888}$

 $10301 \times 101 + 101 \times 10301 = 1040401 + 1040401 := \mathbf{2080802}$
 $10311 \times 101 + 101 \times 11301 = 1041411 + 1141401 := \mathbf{2182812}$
 $10321 \times 101 + 101 \times 12301 = 1042421 + 1242401 := \mathbf{2284822}$
 $11311 \times 101 + 101 \times 11311 = 1142411 + 1142411 := \mathbf{2284822}$
 $10301 \times 111 + 111 \times 10301 = 1143411 + 1143411 := \mathbf{2286822}$
 $10211 \times 111 + 111 \times 11201 = 1133421 + 1243311 := \mathbf{2376732}$
 $10331 \times 101 + 101 \times 13301 = 1043431 + 1343401 := \mathbf{2386832}$
 $11321 \times 101 + 101 \times 12311 = 1143421 + 1243411 := \mathbf{2386832}$
 $10041 \times 101 + 101 \times 14001 = 1014141 + 1414101 := \mathbf{2428242}$
 $11031 \times 101 + 101 \times 13011 = 1114131 + 1314111 := \mathbf{2428242}$
 $12021 \times 101 + 101 \times 12021 = 1214121 + 1214121 := \mathbf{2428242}$
 $10141 \times 101 + 101 \times 14101 = 1024241 + 1424201 := \mathbf{2448442}$
 $11131 \times 101 + 101 \times 13111 = 1124231 + 1324211 := \mathbf{2448442}$
 $12121 \times 101 + 101 \times 12121 = 1224221 + 1224221 := \mathbf{2448442}$
 $10121 \times 111 + 111 \times 12101 = 1123431 + 1343211 := \mathbf{2466642}$
 $10201 \times 121 + 121 \times 10201 = 1234321 + 1234321 := \mathbf{2468642}$
 $10241 \times 101 + 101 \times 14201 = 1034341 + 1434301 := \mathbf{2468642}$
 $11231 \times 101 + 101 \times 13211 = 1134331 + 1334311 := \mathbf{2468642}$
 $12221 \times 101 + 101 \times 12221 = 1234321 + 1234321 := \mathbf{2468642}$
 $10341 \times 101 + 101 \times 14301 = 1044441 + 1444401 := \mathbf{2488842}$
 $11331 \times 101 + 101 \times 13311 = 1144431 + 1344411 := \mathbf{2488842}$
 $12321 \times 101 + 101 \times 12321 = 1244421 + 1244421 := \mathbf{2488842}$
 $10031 \times 111 + 111 \times 13001 = 1113441 + 1443111 := \mathbf{2556552}$
 $10111 \times 121 + 121 \times 11101 = 1223431 + 1343221 := \mathbf{2566652}$
 $11031 \times 111 + 111 \times 13011 = 1224441 + 1444221 := \mathbf{2668662}$
 $12021 \times 111 + 111 \times 12021 = 1334331 + 1334331 := \mathbf{2668662}$
 $10011 \times 131 + 131 \times 11001 = 1311441 + 1441131 := \mathbf{2752572}$
 $10001 \times 141 + 141 \times 10001 = 1410141 + 1410141 := \mathbf{2820282}$
 $10101 \times 141 + 141 \times 10101 = 1424241 + 1424241 := \mathbf{2848482}$
 $11011 \times 131 + 131 \times 11011 = 1442441 + 1442441 := \mathbf{2884882}$
 $10202 \times 101 + 101 \times 20201 = 1030402 + 2040301 := \mathbf{3070703}$
 $10212 \times 101 + 101 \times 21201 = 1031412 + 2141301 := \mathbf{3172713}$
 $11202 \times 101 + 101 \times 20211 = 1131402 + 2041311 := \mathbf{3172713}$
 $10021 \times 201 + 102 \times 12001 = 2014221 + 1224102 := \mathbf{3238323}$
 $10121 \times 201 + 102 \times 12101 = 2034321 + 1234302 := \mathbf{3268623}$
 $10222 \times 101 + 101 \times 22201 = 1032422 + 2242301 := \mathbf{3274723}$
 $11212 \times 101 + 101 \times 21211 = 1132412 + 2142311 := \mathbf{3274723}$

$$\begin{aligned}
12202 \times 101 + 101 \times 20221 &= 1232402 + 2042321 := \mathbf{3274723} & 11102 \times 121 + 121 \times 20111 &= 1343342 + 2433431 := \mathbf{3776773} \\
10202 \times 111 + 111 \times 20201 &= 1132422 + 2242311 := \mathbf{3374733} & 12022 \times 111 + 111 \times 22021 &= 1334442 + 2444331 := \mathbf{3778773} \\
10111 \times 211 + 112 \times 11101 &= 2133421 + 1243312 := \mathbf{3376733} & 13012 \times 111 + 111 \times 21031 &= 1444332 + 2334441 := \mathbf{3778773} \\
10232 \times 101 + 101 \times 23201 &= 1033432 + 2343301 := \mathbf{3376733} & 10001 \times 142 + 241 \times 10001 &= 1420142 + 2410241 := \mathbf{3830383} \\
11222 \times 101 + 101 \times 22211 &= 1133422 + 2243311 := \mathbf{3376733} & 10101 \times 142 + 241 \times 10101 &= 1434342 + 2434341 := \mathbf{3868683} \\
12212 \times 101 + 101 \times 21221 &= 1233412 + 2143321 := \mathbf{3376733} & 10002 \times 201 + 102 \times 20001 &= 2010402 + 2040102 := \mathbf{4050504} \\
13202 \times 101 + 101 \times 20231 &= 1333402 + 2043331 := \mathbf{3376733} & 10103 \times 101 + 101 \times 30101 &= 1020403 + 3040201 := \mathbf{4060604} \\
10021 \times 102 + 201 \times 12001 &= 1022142 + 2412201 := \mathbf{3434343} & 10101 \times 103 + 301 \times 10101 &= 1040403 + 3040401 := \mathbf{4080804} \\
10042 \times 101 + 101 \times 24001 &= 1014242 + 2424101 := \mathbf{3438343} & 10101 \times 202 + 202 \times 10101 &= 2040402 + 2040402 := \mathbf{4080804} \\
11032 \times 101 + 101 \times 23011 &= 1114232 + 2324111 := \mathbf{3438343} & 20202 \times 101 + 101 \times 20202 &= 2040402 + 2040402 := \mathbf{4080804} \\
12022 \times 101 + 101 \times 22021 &= 1214222 + 2224121 := \mathbf{3438343} & 10012 \times 201 + 102 \times 21001 &= 2012412 + 2142102 := \mathbf{4154514} \\
13012 \times 101 + 101 \times 21031 &= 1314212 + 2124131 := \mathbf{3438343} & 10113 \times 101 + 101 \times 31101 &= 1021413 + 3141201 := \mathbf{4162614} \\
14002 \times 101 + 101 \times 20041 &= 1414202 + 2024141 := \mathbf{3438343} & 11103 \times 101 + 101 \times 30111 &= 1121403 + 3041211 := \mathbf{4162614} \\
10021 \times 211 + 112 \times 12001 &= 2114431 + 1344112 := \mathbf{3458543} & 20212 \times 101 + 101 \times 21202 &= 2041412 + 2141402 := \mathbf{4182814} \\
10142 \times 101 + 101 \times 24101 &= 1024342 + 2434201 := \mathbf{3458543} & 10111 \times 301 + 103 \times 11101 &= 3043411 + 1143403 := \mathbf{4186814} \\
11132 \times 101 + 101 \times 23111 &= 1124332 + 2334211 := \mathbf{3458543} & 11002 \times 201 + 102 \times 20011 &= 2211402 + 2041122 := \mathbf{4252524} \\
12122 \times 101 + 101 \times 22121 &= 1224322 + 2234221 := \mathbf{3458543} & 10022 \times 201 + 102 \times 22001 &= 2014422 + 2244102 := \mathbf{4258524} \\
13112 \times 101 + 101 \times 21131 &= 1324312 + 2134231 := \mathbf{3458543} & 10123 \times 101 + 101 \times 32101 &= 1022423 + 3242201 := \mathbf{4264624} \\
14102 \times 101 + 101 \times 20141 &= 1424302 + 2034241 := \mathbf{3458543} & 11113 \times 101 + 101 \times 31111 &= 1122413 + 3142211 := \mathbf{4264624} \\
10112 \times 111 + 111 \times 21101 &= 1122432 + 2342211 := \mathbf{3464643} & 12103 \times 101 + 101 \times 30121 &= 1222403 + 3042221 := \mathbf{4264624} \\
10121 \times 102 + 201 \times 12101 &= 1032342 + 2432301 := \mathbf{3464643} & 10101 \times 113 + 311 \times 10101 &= 1141413 + 3141411 := \mathbf{4282824} \\
10111 \times 112 + 211 \times 11101 &= 1132432 + 2342311 := \mathbf{3474743} & 10101 \times 212 + 212 \times 10101 &= 2141412 + 2141412 := \mathbf{4282824} \\
10242 \times 101 + 101 \times 24201 &= 1034442 + 2444301 := \mathbf{3478743} & 10111 \times 202 + 202 \times 11101 &= 2042422 + 2242402 := \mathbf{4284824} \\
11232 \times 101 + 101 \times 23211 &= 1134432 + 2344311 := \mathbf{3478743} & 20222 \times 101 + 101 \times 22202 &= 2042422 + 2242402 := \mathbf{4284824} \\
12222 \times 101 + 101 \times 22221 &= 1234422 + 2244321 := \mathbf{3478743} & 21212 \times 101 + 101 \times 21212 &= 2142412 + 2142412 := \mathbf{4284824} \\
13212 \times 101 + 101 \times 21231 &= 1334412 + 2144331 := \mathbf{3478743} & 10002 \times 211 + 112 \times 20001 &= 2110422 + 2240112 := \mathbf{4350534} \\
14202 \times 101 + 101 \times 20241 &= 1434402 + 2044341 := \mathbf{3478743} & 10011 \times 311 + 113 \times 11001 &= 3113421 + 1243113 := \mathbf{4356534} \\
11202 \times 111 + 111 \times 20211 &= 1243422 + 2243421 := \mathbf{3486843} & 11012 \times 201 + 102 \times 21011 &= 2213412 + 2143122 := \mathbf{4356534} \\
11021 \times 102 + 201 \times 12011 &= 1124142 + 2414211 := \mathbf{3538353} & 10133 \times 101 + 101 \times 33101 &= 1023433 + 3343201 := \mathbf{4366634} \\
10011 \times 221 + 122 \times 11001 &= 2212431 + 1342122 := \mathbf{3554553} & 11123 \times 101 + 101 \times 32111 &= 1123423 + 3243211 := \mathbf{4366634} \\
10022 \times 111 + 111 \times 22001 &= 1112442 + 2442111 := \mathbf{3554553} & 12113 \times 101 + 101 \times 31121 &= 1223413 + 3143221 := \mathbf{4366634} \\
11121 \times 102 + 201 \times 12111 &= 1134342 + 2434311 := \mathbf{3568653} & 13103 \times 101 + 101 \times 30131 &= 1323403 + 3043231 := \mathbf{4366634} \\
12102 \times 111 + 111 \times 20121 &= 1343322 + 2233431 := \mathbf{3576753} & 10111 \times 103 + 301 \times 11101 &= 1041433 + 3341401 := \mathbf{4382834} \\
10002 \times 121 + 121 \times 20001 &= 1210242 + 2420121 := \mathbf{3630363} & 20232 \times 101 + 101 \times 23202 &= 2043432 + 2343402 := \mathbf{4386834} \\
10011 \times 122 + 221 \times 11001 &= 1221342 + 2431221 := \mathbf{3652563} & 21222 \times 101 + 101 \times 22212 &= 2143422 + 2243412 := \mathbf{4386834} \\
10102 \times 121 + 121 \times 20101 &= 1222342 + 2432221 := \mathbf{3654563} & 10021 \times 202 + 202 \times 12001 &= 2024242 + 2424202 := \mathbf{4448444} \\
11022 \times 111 + 111 \times 22011 &= 1223442 + 2443221 := \mathbf{3666663} & 10043 \times 101 + 101 \times 34001 &= 1014343 + 3434101 := \mathbf{4448444} \\
13002 \times 111 + 111 \times 20031 &= 1443222 + 2223441 := \mathbf{3666663} & 11011 \times 103 + 301 \times 11011 &= 1134133 + 3314311 := \mathbf{4448444} \\
10202 \times 121 + 121 \times 20201 &= 1234442 + 2444321 := \mathbf{3678763} & 11011 \times 202 + 202 \times 11011 &= 2224222 + 2224222 := \mathbf{4448444} \\
11002 \times 121 + 121 \times 20011 &= 1331242 + 2421331 := \mathbf{3752573} & 11033 \times 101 + 101 \times 33011 &= 1114333 + 3334111 := \mathbf{4448444} \\
11011 \times 122 + 221 \times 11011 &= 1343342 + 2433431 := \mathbf{3776773} & 12023 \times 101 + 101 \times 32021 &= 1214323 + 3234121 := \mathbf{4448444}
\end{aligned}$$

$$\begin{aligned}
13013 \times 101 + 101 \times 31031 &= 1314313 + 3134131 := \mathbf{4448444} & 21022 \times 111 + 111 \times 22012 &= 2333442 + 2443332 := \mathbf{4776774} \\
14003 \times 101 + 101 \times 30041 &= 1414303 + 3034141 := \mathbf{4448444} & 10001 \times 143 + 341 \times 10001 &= 1430143 + 3410341 := \mathbf{4840484} \\
20042 \times 101 + 101 \times 24002 &= 2024242 + 2424202 := \mathbf{4448444} & 10001 \times 242 + 242 \times 10001 &= 2420242 + 2420242 := \mathbf{4840484} \\
21032 \times 101 + 101 \times 23012 &= 2124232 + 2324212 := \mathbf{4448444} & 20002 \times 121 + 121 \times 20002 &= 2420242 + 2420242 := \mathbf{4840484} \\
22022 \times 101 + 101 \times 22022 &= 2224222 + 2224222 := \mathbf{4448444} & 20102 \times 121 + 121 \times 20102 &= 2432342 + 2432342 := \mathbf{4864684} \\
12002 \times 201 + 102 \times 20021 &= 2412402 + 2042142 := \mathbf{4454544} & 11002 \times 221 + 122 \times 20011 &= 2431442 + 2441342 := \mathbf{4872784} \\
10103 \times 111 + 111 \times 30101 &= 1121433 + 3341211 := \mathbf{4462644} & 10101 \times 143 + 341 \times 10101 &= 1444443 + 3444441 := \mathbf{4888884} \\
10143 \times 101 + 101 \times 34101 &= 1024443 + 3444201 := \mathbf{4468644} & 10101 \times 242 + 242 \times 10101 &= 2444442 + 2444442 := \mathbf{4888884} \\
11133 \times 101 + 101 \times 33111 &= 1124433 + 3344211 := \mathbf{4468644} & 11011 \times 222 + 222 \times 11011 &= 2444442 + 2444442 := \mathbf{4888884} \\
12123 \times 101 + 101 \times 32121 &= 1224423 + 3244221 := \mathbf{4468644} & 13013 \times 111 + 111 \times 31031 &= 1444443 + 3444441 := \mathbf{4888884} \\
13113 \times 101 + 101 \times 31131 &= 1324413 + 3144231 := \mathbf{4468644} & 20202 \times 121 + 121 \times 20202 &= 2444442 + 2444442 := \mathbf{4888884} \\
14103 \times 101 + 101 \times 30141 &= 1424403 + 3044241 := \mathbf{4468644} & 22022 \times 111 + 111 \times 22022 &= 2444442 + 2444442 := \mathbf{4888884} \\
20142 \times 101 + 101 \times 24102 &= 2034342 + 2434302 := \mathbf{4468644} & 10002 \times 102 + 201 \times 20001 &= 1020204 + 4020201 := \mathbf{5040405} \\
21132 \times 101 + 101 \times 23112 &= 2134332 + 2334312 := \mathbf{4468644} & 10001 \times 104 + 401 \times 10001 &= 1040104 + 4010401 := \mathbf{5050505} \\
22122 \times 101 + 101 \times 22122 &= 2234322 + 2234322 := \mathbf{4468644} & 10004 \times 101 + 101 \times 40001 &= 1010404 + 4040101 := \mathbf{5050505} \\
10101 \times 123 + 321 \times 10101 &= 1242423 + 3242421 := \mathbf{4484844} & 10102 \times 102 + 201 \times 20101 &= 1030404 + 4040301 := \mathbf{5070705} \\
10101 \times 222 + 222 \times 10101 &= 2242422 + 2242422 := \mathbf{4484844} & 20103 \times 101 + 101 \times 30102 &= 2030403 + 3040302 := \mathbf{5070705} \\
20202 \times 111 + 111 \times 20202 &= 2242422 + 2242422 := \mathbf{4484844} & 11002 \times 102 + 201 \times 20011 &= 1122204 + 4022211 := \mathbf{5144415} \\
10121 \times 202 + 202 \times 12101 &= 2044442 + 2444402 := \mathbf{4488844} & 10014 \times 101 + 101 \times 41001 &= 1011414 + 4141101 := \mathbf{5152515} \\
11111 \times 103 + 301 \times 11111 &= 1144433 + 3344411 := \mathbf{4488844} & 11004 \times 101 + 101 \times 40011 &= 1111404 + 4041111 := \mathbf{5152515} \\
11111 \times 202 + 202 \times 11111 &= 2244422 + 2244422 := \mathbf{4488844} & 10011 \times 401 + 104 \times 11001 &= 4014411 + 1144104 := \mathbf{5158515} \\
20242 \times 101 + 101 \times 24202 &= 2044442 + 2444402 := \mathbf{4488844} & 20113 \times 101 + 101 \times 31102 &= 2031413 + 3141302 := \mathbf{5172715} \\
21232 \times 101 + 101 \times 23212 &= 2144432 + 2344412 := \mathbf{4488844} & 21103 \times 101 + 101 \times 30112 &= 2131403 + 3041312 := \mathbf{5172715} \\
22222 \times 101 + 101 \times 22222 &= 2244422 + 2244422 := \mathbf{4488844} & 11102 \times 102 + 201 \times 20111 &= 1132404 + 4042311 := \mathbf{5174715} \\
10011 \times 113 + 311 \times 11001 &= 1131243 + 3421311 := \mathbf{4552554} & 10012 \times 102 + 201 \times 21001 &= 1021224 + 4221201 := \mathbf{5242425} \\
10013 \times 111 + 111 \times 31001 &= 1111443 + 3441111 := \mathbf{4552554} & 12002 \times 102 + 201 \times 20021 &= 1224204 + 4024221 := \mathbf{5248425} \\
12012 \times 201 + 102 \times 21021 &= 2414412 + 2144142 := \mathbf{4558554} & 10001 \times 114 + 411 \times 10001 &= 1140114 + 4110411 := \mathbf{5250525} \\
11002 \times 211 + 112 \times 20011 &= 2321422 + 2241232 := \mathbf{4562654} & 10024 \times 101 + 101 \times 42001 &= 1012424 + 4242101 := \mathbf{5254525} \\
11103 \times 111 + 111 \times 30111 &= 1232433 + 3342321 := \mathbf{4574754} & 11014 \times 101 + 101 \times 41011 &= 1112414 + 4142111 := \mathbf{5254525} \\
20112 \times 111 + 111 \times 21102 &= 2232432 + 2342322 := \mathbf{4574754} & 12004 \times 101 + 101 \times 40021 &= 1212404 + 4042121 := \mathbf{5254525} \\
10002 \times 221 + 122 \times 20001 &= 2210442 + 2440122 := \mathbf{4650564} & 10112 \times 102 + 201 \times 21101 &= 1031424 + 4241301 := \mathbf{5272725} \\
10011 \times 222 + 222 \times 11001 &= 2222442 + 2442222 := \mathbf{4664664} & 20123 \times 101 + 101 \times 32102 &= 2032423 + 3242302 := \mathbf{5274725} \\
11013 \times 111 + 111 \times 31011 &= 1222443 + 3442221 := \mathbf{4664664} & 21113 \times 101 + 101 \times 31112 &= 2132413 + 3142312 := \mathbf{5274725} \\
20022 \times 111 + 111 \times 22002 &= 2222442 + 2442222 := \mathbf{4664664} & 22103 \times 101 + 101 \times 30122 &= 2232403 + 3042322 := \mathbf{5274725} \\
11011 \times 113 + 311 \times 11011 &= 1244243 + 3424421 := \mathbf{4668664} & 12102 \times 102 + 201 \times 20121 &= 1234404 + 4044321 := \mathbf{5278725} \\
11011 \times 212 + 212 \times 11011 &= 2334332 + 2334332 := \mathbf{4668664} & 10002 \times 112 + 211 \times 20001 &= 1120224 + 4220211 := \mathbf{5340435} \\
10101 \times 133 + 331 \times 10101 &= 1343433 + 3343431 := \mathbf{4686864} & 11012 \times 102 + 201 \times 21011 &= 1123224 + 4223211 := \mathbf{5346435} \\
10101 \times 232 + 232 \times 10101 &= 2343432 + 2343432 := \mathbf{4686864} & 10034 \times 101 + 101 \times 43001 &= 1013434 + 4343101 := \mathbf{5356535} \\
12103 \times 111 + 111 \times 30121 &= 1343433 + 3343431 := \mathbf{4686864} & 11024 \times 101 + 101 \times 42011 &= 1113424 + 4243111 := \mathbf{5356535} \\
12013 \times 111 + 111 \times 31021 &= 1333443 + 3443331 := \mathbf{4776774} & 12014 \times 101 + 101 \times 41021 &= 1213414 + 4143121 := \mathbf{5356535} \\
13003 \times 111 + 111 \times 30031 &= 1443333 + 3333441 := \mathbf{4776774} & 13004 \times 101 + 101 \times 40031 &= 1313404 + 4043131 := \mathbf{5356535}
\end{aligned}$$

$$\begin{aligned}
10102 \times 112 + 211 \times 20101 &= 1131424 + 4241311 := \mathbf{5372735} & 11012 \times 112 + 211 \times 21011 &= 1233344 + 4433321 := \mathbf{5666665} \\
11112 \times 102 + 201 \times 21111 &= 1133424 + 4243311 := \mathbf{5376735} & 10102 \times 122 + 221 \times 20101 &= 1232444 + 4442321 := \mathbf{5674765} \\
20133 \times 101 + 101 \times 33102 &= 2033433 + 3343302 := \mathbf{5376735} & 21103 \times 111 + 111 \times 30112 &= 2342433 + 3342432 := \mathbf{5684865} \\
21111 \times 201 + 102 \times 11112 &= 4243311 + 1133424 := \mathbf{5376735} & 11002 \times 122 + 221 \times 20011 &= 1342244 + 4422431 := \mathbf{5764675} \\
21123 \times 101 + 101 \times 32112 &= 2133423 + 3243312 := \mathbf{5376735} & 12004 \times 111 + 111 \times 40021 &= 1332444 + 4442331 := \mathbf{5774775} \\
22113 \times 101 + 101 \times 31122 &= 2233413 + 3143322 := \mathbf{5376735} & 21013 \times 111 + 111 \times 31012 &= 2332443 + 3442332 := \mathbf{5774775} \\
23103 \times 101 + 101 \times 30132 &= 2333403 + 3043332 := \mathbf{5376735} & 22003 \times 111 + 111 \times 30022 &= 2442333 + 3332442 := \mathbf{5774775} \\
10022 \times 102 + 201 \times 22001 &= 1022244 + 4422201 := \mathbf{5444445} & 10001 \times 144 + 441 \times 10001 &= 1440144 + 4410441 := \mathbf{5850585} \\
10001 \times 124 + 421 \times 10001 &= 1240124 + 4210421 := \mathbf{5450545} & 10001 \times 243 + 342 \times 10001 &= 2430243 + 3420342 := \mathbf{5850585} \\
10011 \times 104 + 401 \times 11001 &= 1041144 + 4411401 := \mathbf{5452545} & 13004 \times 111 + 111 \times 40031 &= 1443444 + 4443441 := \mathbf{5886885} \\
11002 \times 112 + 211 \times 20011 &= 1232224 + 4222321 := \mathbf{5454545} & 22013 \times 111 + 111 \times 31022 &= 2443443 + 3443442 := \mathbf{5886885} \\
10044 \times 101 + 101 \times 44001 &= 1014444 + 4444101 := \mathbf{5458545} & 10001 \times 204 + 402 \times 10001 &= 2040204 + 4020402 := \mathbf{6060606} \\
11034 \times 101 + 101 \times 43011 &= 1114434 + 4344111 := \mathbf{5458545} & 10002 \times 202 + 202 \times 20001 &= 2020404 + 4040202 := \mathbf{6060606} \\
12024 \times 101 + 101 \times 42021 &= 1214424 + 4244121 := \mathbf{5458545} & 20002 \times 102 + 201 \times 20002 &= 2040204 + 4020402 := \mathbf{6060606} \\
13014 \times 101 + 101 \times 41031 &= 1314414 + 4144131 := \mathbf{5458545} & 20004 \times 101 + 101 \times 40002 &= 2020404 + 4040202 := \mathbf{6060606} \\
14004 \times 101 + 101 \times 40041 &= 1414404 + 4044141 := \mathbf{5458545} & 30103 \times 101 + 101 \times 30103 &= 3040403 + 3040403 := \mathbf{6080806} \\
20043 \times 101 + 101 \times 34002 &= 2024343 + 3434202 := \mathbf{5458545} & 20014 \times 101 + 101 \times 41002 &= 2021414 + 4141202 := \mathbf{6162616} \\
21033 \times 101 + 101 \times 33012 &= 2124333 + 3334212 := \mathbf{5458545} & 21004 \times 101 + 101 \times 40012 &= 2121404 + 4041212 := \mathbf{6162616} \\
22023 \times 101 + 101 \times 32022 &= 2224323 + 3234222 := \mathbf{5458545} & 20012 \times 201 + 102 \times 21002 &= 4022412 + 2142204 := \mathbf{6164616} \\
23013 \times 101 + 101 \times 31032 &= 2324313 + 3134232 := \mathbf{5458545} & 30113 \times 101 + 101 \times 31103 &= 3041413 + 3141403 := \mathbf{6182816} \\
24003 \times 101 + 101 \times 30042 &= 2424303 + 3034242 := \mathbf{5458545} & 10001 \times 214 + 412 \times 10001 &= 2140214 + 4120412 := \mathbf{6260626} \\
10011 \times 312 + 213 \times 11001 &= 3123432 + 2343213 := \mathbf{5466645} & 20012 \times 102 + 201 \times 21002 &= 2041224 + 4221402 := \mathbf{6262626} \\
10122 \times 102 + 201 \times 22101 &= 1032444 + 4442301 := \mathbf{5474745} & 10012 \times 202 + 202 \times 21001 &= 2022424 + 4242202 := \mathbf{6264626} \\
20143 \times 101 + 101 \times 34102 &= 2034443 + 3444302 := \mathbf{5478745} & 11002 \times 202 + 202 \times 20011 &= 2222404 + 4042222 := \mathbf{6264626} \\
21133 \times 101 + 101 \times 33112 &= 2134433 + 3344312 := \mathbf{5478745} & 20024 \times 101 + 101 \times 42002 &= 2022424 + 4242202 := \mathbf{6264626} \\
22123 \times 101 + 101 \times 32122 &= 2234423 + 3244322 := \mathbf{5478745} & 21014 \times 101 + 101 \times 41012 &= 2122414 + 4142212 := \mathbf{6264626} \\
23113 \times 101 + 101 \times 31132 &= 2334413 + 3144332 := \mathbf{5478745} & 22004 \times 101 + 101 \times 40022 &= 2222404 + 4042222 := \mathbf{6264626} \\
24103 \times 101 + 101 \times 30142 &= 2434403 + 3044342 := \mathbf{5478745} & 10011 \times 402 + 204 \times 11001 &= 4024422 + 2244204 := \mathbf{6268626} \\
11102 \times 112 + 211 \times 20111 &= 1243424 + 4243421 := \mathbf{5486845} & 20022 \times 201 + 102 \times 22002 &= 4024422 + 2244204 := \mathbf{6268626} \\
11022 \times 102 + 201 \times 22011 &= 1124244 + 4424211 := \mathbf{5548455} & 30123 \times 101 + 101 \times 32103 &= 3042423 + 3242403 := \mathbf{6284826} \\
10004 \times 111 + 111 \times 40001 &= 1110444 + 4440111 := \mathbf{5550555} & 31113 \times 101 + 101 \times 31113 &= 3142413 + 3142413 := \mathbf{6284826} \\
10012 \times 112 + 211 \times 21001 &= 1121344 + 4431211 := \mathbf{5552555} & 10002 \times 212 + 212 \times 20001 &= 2120424 + 4240212 := \mathbf{6360636} \\
10011 \times 213 + 312 \times 11001 &= 2132343 + 3432312 := \mathbf{5564655} & 20034 \times 101 + 101 \times 43002 &= 2023434 + 4343202 := \mathbf{6366636} \\
12002 \times 112 + 211 \times 20021 &= 1344224 + 4224431 := \mathbf{5568655} & 21012 \times 102 + 201 \times 21012 &= 2143224 + 4223412 := \mathbf{6366636} \\
20103 \times 111 + 111 \times 30102 &= 2231433 + 3341322 := \mathbf{5572755} & 21024 \times 101 + 101 \times 42012 &= 2123424 + 4243212 := \mathbf{6366636} \\
11122 \times 102 + 201 \times 22111 &= 1134444 + 4444311 := \mathbf{5578755} & 22014 \times 101 + 101 \times 41022 &= 2223414 + 4143222 := \mathbf{6366636} \\
10002 \times 122 + 221 \times 20001 &= 1220244 + 4420221 := \mathbf{5640465} & 23004 \times 101 + 101 \times 40032 &= 2323404 + 4043232 := \mathbf{6366636} \\
10001 \times 134 + 431 \times 10001 &= 1340134 + 4310431 := \mathbf{5650565} & 30133 \times 101 + 101 \times 33103 &= 3043433 + 3343403 := \mathbf{6386836} \\
11004 \times 111 + 111 \times 40011 &= 1221444 + 4441221 := \mathbf{5662665} & 31123 \times 101 + 101 \times 32113 &= 3143423 + 3243413 := \mathbf{6386836} \\
20013 \times 111 + 111 \times 31002 &= 2221443 + 3441222 := \mathbf{5662665} & 10001 \times 224 + 422 \times 10001 &= 2240224 + 4220422 := \mathbf{6460646} \\
31002 \times 111 + 111 \times 20013 &= 3441222 + 2221443 := \mathbf{5662665} & 20002 \times 112 + 211 \times 20002 &= 2240224 + 4220422 := \mathbf{6460646}
\end{aligned}$$

$$\begin{aligned}
10011 \times 204 + 402 \times 11001 &= 2042244 + 4422402 := \mathbf{6464646} & 31024 \times 101 + 101 \times 42013 &= 3133424 + 4243313 := \mathbf{7376737} \\
20022 \times 102 + 201 \times 22002 &= 2042244 + 4422402 := \mathbf{6464646} & 32014 \times 101 + 101 \times 41023 &= 3233414 + 4143323 := \mathbf{7376737} \\
20044 \times 101 + 101 \times 44002 &= 2024444 + 4444202 := \mathbf{6468646} & 33004 \times 101 + 101 \times 40033 &= 3333404 + 4043333 := \mathbf{7376737} \\
21034 \times 101 + 101 \times 43012 &= 2124434 + 4344212 := \mathbf{6468646} & 10011 \times 403 + 304 \times 11001 &= 4034433 + 3344304 := \mathbf{7378737} \\
22024 \times 101 + 101 \times 42022 &= 2224424 + 4244222 := \mathbf{6468646} & 10001 \times 324 + 423 \times 10001 &= 3240324 + 4230423 := \mathbf{7470747} \\
23014 \times 101 + 101 \times 41032 &= 2324414 + 4144232 := \mathbf{6468646} & 10011 \times 304 + 403 \times 11001 &= 3043344 + 4433403 := \mathbf{7476747} \\
40042 \times 101 + 101 \times 24004 &= 4044242 + 2424404 := \mathbf{6468646} & 30044 \times 101 + 101 \times 44003 &= 3034444 + 4444303 := \mathbf{7478747} \\
34003 \times 101 + 101 \times 30043 &= 3434303 + 3034343 := \mathbf{6468646} & 31034 \times 101 + 101 \times 43013 &= 3134434 + 4344313 := \mathbf{7478747} \\
33013 \times 101 + 101 \times 31033 &= 3334313 + 3134333 := \mathbf{6468646} & 32024 \times 101 + 101 \times 42023 &= 3234424 + 4244323 := \mathbf{7478747} \\
32023 \times 101 + 101 \times 32023 &= 3234323 + 3234323 := \mathbf{6468646} & 33014 \times 101 + 101 \times 41033 &= 3334414 + 4144333 := \mathbf{7478747} \\
10022 \times 202 + 202 \times 22001 &= 2024444 + 4444202 := \mathbf{6468646} & 34004 \times 101 + 101 \times 40043 &= 3434404 + 4044343 := \mathbf{7478747} \\
11012 \times 202 + 202 \times 21011 &= 2224424 + 4244222 := \mathbf{6468646} & 10001 \times 334 + 433 \times 10001 &= 3340334 + 4330433 := \mathbf{7670767} \\
12002 \times 202 + 202 \times 20021 &= 2424404 + 4044242 := \mathbf{6468646} & 30004 \times 111 + 111 \times 40003 &= 3330444 + 4440333 := \mathbf{7770777} \\
30143 \times 101 + 101 \times 34103 &= 3044443 + 3444403 := \mathbf{6488846} & 10001 \times 344 + 443 \times 10001 &= 3440344 + 4430443 := \mathbf{7870787} \\
31133 \times 101 + 101 \times 33113 &= 3144433 + 3344413 := \mathbf{6488846} & 31004 \times 111 + 111 \times 40013 &= 3441444 + 4441443 := \mathbf{7882887} \\
32123 \times 101 + 101 \times 32123 &= 3244423 + 3244423 := \mathbf{6488846} & 10001 \times 404 + 404 \times 10001 &= 4040404 + 4040404 := \mathbf{8080808} \\
21022 \times 102 + 201 \times 22012 &= 2144244 + 4424412 := \mathbf{6568656} & 20002 \times 202 + 202 \times 20002 &= 4040404 + 4040404 := \mathbf{8080808} \\
11002 \times 212 + 212 \times 20011 &= 2332424 + 4242332 := \mathbf{6574756} & 40004 \times 101 + 101 \times 40004 &= 4040404 + 4040404 := \mathbf{8080808} \\
10011 \times 313 + 313 \times 11001 &= 3133443 + 3443313 := \mathbf{6576756} & 40014 \times 101 + 101 \times 41004 &= 4041414 + 4141404 := \mathbf{8182818} \\
10001 \times 234 + 432 \times 10001 &= 2340234 + 4320432 := \mathbf{6660666} & 10001 \times 414 + 414 \times 10001 &= 4140414 + 4140414 := \mathbf{8280828} \\
10002 \times 222 + 222 \times 20001 &= 2220444 + 4440222 := \mathbf{6660666} & 20012 \times 202 + 202 \times 21002 &= 4042424 + 4242404 := \mathbf{8284828} \\
20004 \times 111 + 111 \times 40002 &= 2220444 + 4440222 := \mathbf{6660666} & 40024 \times 101 + 101 \times 42004 &= 4042424 + 4242404 := \mathbf{8284828} \\
20012 \times 112 + 211 \times 21002 &= 2241344 + 4431422 := \mathbf{6672766} & 40034 \times 101 + 101 \times 43004 &= 4043434 + 4343404 := \mathbf{8386838} \\
30103 \times 111 + 111 \times 30103 &= 3341433 + 3341433 := \mathbf{6682866} & 41024 \times 101 + 101 \times 42014 &= 4143424 + 4243414 := \mathbf{8386838} \\
21004 \times 111 + 111 \times 40012 &= 2331444 + 4441332 := \mathbf{6772776} & 10001 \times 424 + 424 \times 10001 &= 4240424 + 4240424 := \mathbf{8480848} \\
30013 \times 111 + 111 \times 31003 &= 3331443 + 3441333 := \mathbf{6772776} & 20002 \times 212 + 212 \times 20002 &= 4240424 + 4240424 := \mathbf{8480848} \\
10001 \times 244 + 442 \times 10001 &= 2440244 + 4420442 := \mathbf{6860686} & 10011 \times 404 + 404 \times 11001 &= 4044444 + 4444404 := \mathbf{8488848} \\
10001 \times 343 + 343 \times 10001 &= 3430343 + 3430343 := \mathbf{6860686} & 20022 \times 202 + 202 \times 22002 &= 4044444 + 4444404 := \mathbf{8488848} \\
20002 \times 122 + 221 \times 20002 &= 2440244 + 4420442 := \mathbf{6860686} & 21012 \times 202 + 202 \times 21012 &= 4244424 + 4244424 := \mathbf{8488848} \\
11002 \times 222 + 222 \times 20011 &= 2442444 + 4442442 := \mathbf{6884886} & 40044 \times 101 + 101 \times 44004 &= 4044444 + 4444404 := \mathbf{8488848} \\
22004 \times 111 + 111 \times 40022 &= 2442444 + 4442442 := \mathbf{6884886} & 41034 \times 101 + 101 \times 43014 &= 4144434 + 4344414 := \mathbf{8488848} \\
31013 \times 111 + 111 \times 31013 &= 3442443 + 3442443 := \mathbf{6884886} & 42024 \times 101 + 101 \times 42024 &= 4244424 + 4244424 := \mathbf{8488848} \\
10001 \times 304 + 403 \times 10001 &= 3040304 + 4030403 := \mathbf{7070707} & 10001 \times 434 + 434 \times 10001 &= 4340434 + 4340434 := \mathbf{8680868} \\
30004 \times 101 + 101 \times 40003 &= 3030404 + 4040303 := \mathbf{7070707} & 10001 \times 444 + 444 \times 10001 &= 4440444 + 4440444 := \mathbf{8880888} \\
30014 \times 101 + 101 \times 41003 &= 3031414 + 4141303 := \mathbf{7172717} & 20002 \times 222 + 222 \times 20002 &= 4440444 + 4440444 := \mathbf{8880888} \\
31004 \times 101 + 101 \times 40013 &= 3131404 + 4041313 := \mathbf{7172717} & 40004 \times 111 + 111 \times 40004 &= 4440444 + 4440444 := \mathbf{8880888} \\
10001 \times 314 + 413 \times 10001 &= 3140314 + 4130413 := \mathbf{7270727} & & \\
30024 \times 101 + 101 \times 42003 &= 3032424 + 4242303 := \mathbf{7274727} & 1101 \times 1021 + 1201 \times 1011 &= 1124121 + 1214211 := \mathbf{2338332} \\
31014 \times 101 + 101 \times 41013 &= 3132414 + 4142313 := \mathbf{7274727} & 1041 \times 1001 + 1001 \times 1401 &= 1042041 + 1402401 := \mathbf{2444442} \\
32004 \times 101 + 101 \times 40023 &= 3232404 + 4042323 := \mathbf{7274727} & 1121 \times 1101 + 1011 \times 1211 &= 1234221 + 1224321 := \mathbf{2458542} \\
30034 \times 101 + 101 \times 43003 &= 3033434 + 4343303 := \mathbf{7376737} & 1111 \times 1021 + 1201 \times 1111 &= 1134331 + 1334311 := \mathbf{2468642}
\end{aligned}$$

$$\begin{aligned}
1031 \times 1011 + 1101 \times 1301 &= 1042341 + 1432401 := \mathbf{2474742} & 2002 \times 1011 + 1101 \times 2002 &= 2024022 + 2204202 := \mathbf{4228224} \\
1021 \times 1021 + 1201 \times 1201 &= 1042441 + 1442401 := \mathbf{2484842} & 2022 \times 1001 + 1001 \times 2202 &= 2024022 + 2204202 := \mathbf{4228224} \\
1141 \times 1001 + 1001 \times 1411 &= 1142141 + 1412411 := \mathbf{2554552} & 2112 \times 1001 + 1001 \times 2112 &= 2114112 + 2114112 := \mathbf{4228224} \\
1221 \times 1011 + 1101 \times 1221 &= 1234431 + 1344321 := \mathbf{2578752} & 1103 \times 1101 + 1011 \times 3011 &= 1214403 + 3044121 := \mathbf{4258524} \\
1131 \times 1011 + 1101 \times 1311 &= 1143441 + 1443411 := \mathbf{2586852} & 1011 \times 1003 + 3001 \times 1101 &= 1014033 + 3304101 := \mathbf{4318134} \\
1241 \times 1001 + 1001 \times 1421 &= 1242241 + 1422421 := \mathbf{2664662} & 1033 \times 1001 + 1001 \times 3301 &= 1034033 + 3304301 := \mathbf{4338334} \\
1341 \times 1001 + 1001 \times 1431 &= 1342341 + 1432431 := \mathbf{2774772} & 1123 \times 1001 + 1001 \times 3211 &= 1124123 + 3214211 := \mathbf{4338334} \\
1441 \times 1001 + 1001 \times 1441 &= 1442441 + 1442441 := \mathbf{2884882} & 1213 \times 1001 + 1001 \times 3121 &= 1214213 + 3124121 := \mathbf{4338334} \\
1101 \times 1012 + 2101 \times 1011 &= 1114212 + 2124111 := \mathbf{3238323} & 1303 \times 1001 + 1001 \times 3031 &= 1304303 + 3034031 := \mathbf{4338334} \\
1201 \times 1002 + 2001 \times 1021 &= 1203402 + 2043021 := \mathbf{3246423} & 2032 \times 1001 + 1001 \times 2302 &= 2034032 + 2304302 := \mathbf{4338334} \\
1102 \times 1011 + 1101 \times 2011 &= 1114122 + 2214111 := \mathbf{3328233} & 2122 \times 1001 + 1001 \times 2212 &= 2124122 + 2214212 := \mathbf{4338334} \\
1112 \times 1101 + 1011 \times 2111 &= 1224312 + 2134221 := \mathbf{3358533} & 2012 \times 1011 + 1101 \times 2102 &= 2034132 + 2314302 := \mathbf{4348434} \\
1202 \times 1101 + 1011 \times 2021 &= 1323402 + 2043231 := \mathbf{3366633} & 1013 \times 1011 + 1101 \times 3101 &= 1024143 + 3414201 := \mathbf{4438344} \\
1021 \times 1002 + 2001 \times 1201 &= 1023042 + 2403201 := \mathbf{3426243} & 1043 \times 1001 + 1001 \times 3401 &= 1044043 + 3404401 := \mathbf{4448444} \\
1042 \times 1001 + 1001 \times 2401 &= 1043042 + 2403401 := \mathbf{3446443} & 1111 \times 1003 + 3001 \times 1111 &= 1114333 + 3334111 := \mathbf{4448444} \\
1402 \times 1001 + 1001 \times 2041 &= 1403402 + 2043041 := \mathbf{3446443} & 1133 \times 1001 + 1001 \times 3311 &= 1134133 + 3314311 := \mathbf{4448444} \\
1112 \times 1011 + 1101 \times 2111 &= 1124232 + 2324211 := \mathbf{3448443} & 1223 \times 1001 + 1001 \times 3221 &= 1224223 + 3224221 := \mathbf{4448444} \\
1022 \times 1011 + 1101 \times 2201 &= 1033242 + 2423301 := \mathbf{3456543} & 1313 \times 1001 + 1001 \times 3131 &= 1314313 + 3134131 := \mathbf{4448444} \\
1211 \times 1002 + 2001 \times 1121 &= 1213422 + 2243121 := \mathbf{3456543} & 1403 \times 1001 + 1001 \times 3041 &= 1404403 + 3044041 := \mathbf{4448444} \\
1111 \times 1012 + 2101 \times 1111 &= 1124332 + 2334211 := \mathbf{3458543} & 2002 \times 1021 + 1201 \times 2002 &= 2044042 + 2404402 := \mathbf{4448444} \\
1111 \times 1102 + 2011 \times 1111 &= 1224322 + 2234221 := \mathbf{3458543} & 2002 \times 1111 + 1111 \times 2002 &= 2224222 + 2224222 := \mathbf{4448444} \\
1212 \times 1101 + 1011 \times 2121 &= 1334412 + 2144331 := \mathbf{3478743} & 2042 \times 1001 + 1001 \times 2402 &= 2044042 + 2404402 := \mathbf{4448444} \\
1121 \times 1002 + 2001 \times 1211 &= 1123242 + 2423211 := \mathbf{3546453} & 2132 \times 1001 + 1001 \times 2312 &= 2134132 + 2314312 := \mathbf{4448444} \\
1142 \times 1001 + 1001 \times 2411 &= 1143142 + 2413411 := \mathbf{3556553} & 2222 \times 1001 + 1001 \times 2222 &= 2224222 + 2224222 := \mathbf{4448444} \\
1412 \times 1001 + 1001 \times 2141 &= 1413412 + 2143141 := \mathbf{3556553} & 2022 \times 1011 + 1101 \times 2202 &= 2044242 + 2424402 := \mathbf{4468644} \\
1122 \times 1011 + 1101 \times 2211 &= 1134342 + 2434311 := \mathbf{3568653} & 1143 \times 1001 + 1001 \times 3411 &= 1144143 + 3414411 := \mathbf{4558554} \\
1221 \times 1002 + 2001 \times 1221 &= 1223442 + 2443221 := \mathbf{3666663} & 1233 \times 1001 + 1001 \times 3321 &= 1234233 + 3324321 := \mathbf{4558554} \\
1242 \times 1001 + 1001 \times 2421 &= 1243242 + 2423421 := \mathbf{3666663} & 1323 \times 1001 + 1001 \times 3231 &= 1324323 + 3234231 := \mathbf{4558554} \\
1422 \times 1001 + 1001 \times 2241 &= 1423422 + 2243241 := \mathbf{3666663} & 1413 \times 1001 + 1001 \times 3141 &= 1414413 + 3144141 := \mathbf{4558554} \\
1342 \times 1001 + 1001 \times 2431 &= 1343342 + 2433431 := \mathbf{3776773} & 2142 \times 1001 + 1001 \times 2412 &= 2144142 + 2414412 := \mathbf{4558554} \\
1432 \times 1001 + 1001 \times 2341 &= 1433432 + 2343341 := \mathbf{3776773} & 2232 \times 1001 + 1001 \times 2322 &= 2234232 + 2324322 := \mathbf{4558554} \\
1442 \times 1001 + 1001 \times 2441 &= 1443442 + 2443441 := \mathbf{3886883} & 1243 \times 1001 + 1001 \times 3421 &= 1244243 + 3424421 := \mathbf{4668664} \\
1003 \times 1001 + 1001 \times 3001 &= 1004003 + 3004001 := \mathbf{4008004} & 1333 \times 1001 + 1001 \times 3331 &= 1334333 + 3334331 := \mathbf{4668664} \\
2002 \times 1001 + 1001 \times 2002 &= 2004002 + 2004002 := \mathbf{4008004} & 1423 \times 1001 + 1001 \times 3241 &= 1424423 + 3244241 := \mathbf{4668664} \\
1013 \times 1001 + 1001 \times 3101 &= 1014013 + 3104101 := \mathbf{4118114} & 2002 \times 1121 + 1211 \times 2002 &= 2244242 + 2424422 := \mathbf{4668664} \\
1103 \times 1001 + 1001 \times 3011 &= 1104103 + 3014011 := \mathbf{4118114} & 2242 \times 1001 + 1001 \times 2422 &= 2244242 + 2424422 := \mathbf{4668664} \\
2012 \times 1001 + 1001 \times 2102 &= 2014012 + 2104102 := \mathbf{4118114} & 2332 \times 1001 + 1001 \times 2332 &= 2334332 + 2334332 := \mathbf{4668664} \\
1101 \times 1003 + 3001 \times 1011 &= 1104303 + 3034011 := \mathbf{4138314} & 1343 \times 1001 + 1001 \times 3431 &= 1344343 + 3434431 := \mathbf{4778774} \\
1023 \times 1001 + 1001 \times 3201 &= 1024023 + 3204201 := \mathbf{4228224} & 1433 \times 1001 + 1001 \times 3341 &= 1434433 + 3344341 := \mathbf{4778774} \\
1113 \times 1001 + 1001 \times 3111 &= 1114113 + 3114111 := \mathbf{4228224} & 2342 \times 1001 + 1001 \times 2432 &= 2344342 + 2434432 := \mathbf{4778774} \\
1203 \times 1001 + 1001 \times 3021 &= 1204203 + 3024021 := \mathbf{4228224} & 1443 \times 1001 + 1001 \times 3441 &= 1444443 + 3444441 := \mathbf{4888884}
\end{aligned}$$

$2002 \times 1221 + 1221 \times 2002 = 2444442 + 2444442 := \mathbf{4888884}$
 $2442 \times 1001 + 1001 \times 2442 = 2444442 + 2444442 := \mathbf{4888884}$
 $1002 \times 1002 + 2001 \times 2001 = 1004004 + 4004001 := \mathbf{5008005}$
 $1102 \times 1002 + 2001 \times 2011 = 1104204 + 4024011 := \mathbf{5128215}$
 $1012 \times 1002 + 2001 \times 2101 = 1014024 + 4204101 := \mathbf{5218125}$
 $1202 \times 1002 + 2001 \times 2021 = 1204404 + 4044021 := \mathbf{5248425}$
 $1102 \times 1102 + 2011 \times 2011 = 1214404 + 4044121 := \mathbf{5258525}$
 $1112 \times 1002 + 2001 \times 2111 = 1114224 + 4224111 := \mathbf{5338335}$
 $1022 \times 1002 + 2001 \times 2201 = 1024044 + 4404201 := \mathbf{5428245}$
 $1012 \times 1012 + 2101 \times 2101 = 1024144 + 4414201 := \mathbf{5438345}$
 $1212 \times 1002 + 2001 \times 2121 = 1214424 + 4244121 := \mathbf{5458545}$
 $1122 \times 1002 + 2001 \times 2211 = 1124244 + 4424211 := \mathbf{5548455}$
 $1222 \times 1002 + 2001 \times 2221 = 1224444 + 4444221 := \mathbf{5668665}$

$10401 \times 1001 + 1001 \times 10401 = 10411401 + 10411401 := \mathbf{20822802}$
 $10301 \times 1011 + 1101 \times 10301 = 10414311 + 11341401 := \mathbf{21755712}$
 $10411 \times 1001 + 1001 \times 11401 = 10421411 + 11412401 := \mathbf{21833812}$
 $10211 \times 1101 + 1011 \times 11201 = 11242311 + 11324211 := \mathbf{22566522}$
 $10421 \times 1001 + 1001 \times 12401 = 10431421 + 12413401 := \mathbf{22844822}$
 $11411 \times 1001 + 1001 \times 11411 = 11422411 + 11422411 := \mathbf{22844822}$
 $10311 \times 1011 + 1101 \times 11301 = 10424421 + 12442401 := \mathbf{22866822}$
 $10301 \times 1111 + 1111 \times 10301 = 11444411 + 11444411 := \mathbf{22888822}$
 $10031 \times 1001 + 1001 \times 13001 = 10041031 + 13014001 := \mathbf{23055032}$
 $10131 \times 1001 + 1001 \times 13101 = 10141131 + 13114101 := \mathbf{23255232}$
 $10121 \times 1101 + 1011 \times 12101 = 11143221 + 12234111 := \mathbf{23377332}$
 $10231 \times 1001 + 1001 \times 13201 = 10241231 + 13214201 := \mathbf{23455432}$
 $10111 \times 1201 + 1021 \times 11101 = 12143311 + 11334121 := \mathbf{23477432}$
 $10101 \times 1031 + 1301 \times 10101 = 10414131 + 13141401 := \mathbf{23555532}$
 $10331 \times 1001 + 1001 \times 13301 = 10341331 + 13314301 := \mathbf{23655632}$
 $11211 \times 1011 + 1101 \times 11211 = 11334321 + 12343311 := \mathbf{23677632}$
 $10221 \times 1011 + 1101 \times 12201 = 10333431 + 13433301 := \mathbf{23766732}$
 $10211 \times 1111 + 1111 \times 11201 = 11344421 + 12444311 := \mathbf{23788732}$
 $10431 \times 1001 + 1001 \times 13401 = 10441431 + 13414401 := \mathbf{23855832}$
 $11421 \times 1001 + 1001 \times 12411 = 11432421 + 12423411 := \mathbf{23855832}$
 $11031 \times 1001 + 1001 \times 13011 = 11042031 + 13024011 := \mathbf{24066042}$
 $10031 \times 1101 + 1011 \times 13001 = 11044131 + 13144011 := \mathbf{24188142}$
 $11131 \times 1001 + 1001 \times 13111 = 11142131 + 13124111 := \mathbf{24266242}$
 $11021 \times 1101 + 1011 \times 12011 = 12134121 + 12143121 := \mathbf{24277242}$
 $10011 \times 1301 + 1031 \times 11001 = 13024311 + 11342031 := \mathbf{24366342}$
 $11021 \times 1011 + 1101 \times 12011 = 11142231 + 13224111 := \mathbf{24366342}$
 $10001 \times 1041 + 1401 \times 10001 = 10411041 + 14011401 := \mathbf{24422442}$
 $10031 \times 1011 + 1101 \times 13001 = 10141341 + 14314101 := \mathbf{24455442}$
 $11011 \times 1021 + 1201 \times 11011 = 11242231 + 13224211 := \mathbf{24466442}$

$11231 \times 1001 + 1001 \times 13211 = 11242231 + 13224211 := \mathbf{24466442}$
 $11121 \times 1101 + 1011 \times 12111 = 12244221 + 12244221 := \mathbf{24488442}$
 $11121 \times 1011 + 1101 \times 12111 = 11243331 + 13334211 := \mathbf{24577542}$
 $10011 \times 1031 + 1301 \times 11001 = 10321341 + 14312301 := \mathbf{24633642}$
 $10021 \times 1021 + 1201 \times 12001 = 10231441 + 14413201 := \mathbf{24644642}$
 $10101 \times 1131 + 1311 \times 10101 = 11424231 + 13242411 := \mathbf{24666642}$
 $10131 \times 1011 + 1101 \times 13101 = 10242441 + 14424201 := \mathbf{24666642}$
 $11331 \times 1001 + 1001 \times 13311 = 11342331 + 13324311 := \mathbf{24666642}$
 $10111 \times 1211 + 1121 \times 11101 = 12244421 + 12444221 := \mathbf{24688642}$
 $10121 \times 1111 + 1111 \times 12101 = 11244431 + 13444211 := \mathbf{24688642}$
 $11111 \times 1021 + 1201 \times 11111 = 11344331 + 13344311 := \mathbf{24688642}$
 $10111 \times 1121 + 1211 \times 11101 = 11334431 + 13443311 := \mathbf{24777742}$
 $11221 \times 1011 + 1101 \times 12211 = 11344431 + 13444311 := \mathbf{24788742}$
 $10111 \times 1031 + 1301 \times 11101 = 10424441 + 14442401 := \mathbf{24866842}$
 $11431 \times 1001 + 1001 \times 13411 = 11442431 + 13424411 := \mathbf{24866842}$
 $12421 \times 1001 + 1001 \times 12421 = 12433421 + 12433421 := \mathbf{24866842}$
 $12031 \times 1001 + 1001 \times 13021 = 12043031 + 13034021 := \mathbf{25077052}$
 $12131 \times 1001 + 1001 \times 13121 = 12143131 + 13134121 := \mathbf{25277252}$
 $12231 \times 1001 + 1001 \times 13221 = 12243231 + 13234221 := \mathbf{25477452}$
 $10001 \times 1141 + 1411 \times 10001 = 11411141 + 14111411 := \mathbf{25522552}$
 $10011 \times 1311 + 1131 \times 11001 = 13124421 + 12442131 := \mathbf{25566552}$
 $10031 \times 1111 + 1111 \times 13001 = 11144441 + 14444111 := \mathbf{25588552}$
 $11021 \times 1111 + 1111 \times 12011 = 12244331 + 13344221 := \mathbf{25588552}$
 $10011 \times 1221 + 1221 \times 11001 = 12223431 + 13432221 := \mathbf{25655652}$
 $11011 \times 1121 + 1211 \times 11011 = 12343331 + 13334321 := \mathbf{25677652}$
 $12331 \times 1001 + 1001 \times 13321 = 12343331 + 13334321 := \mathbf{25677652}$
 $10011 \times 1131 + 1311 \times 11001 = 11322441 + 14422311 := \mathbf{25744752}$
 $10101 \times 1231 + 1321 \times 10101 = 12434331 + 13343421 := \mathbf{25777752}$
 $12431 \times 1001 + 1001 \times 13421 = 12443431 + 13434421 := \mathbf{25877852}$
 $13031 \times 1001 + 1001 \times 13031 = 13044031 + 13044031 := \mathbf{26088062}$
 $13131 \times 1001 + 1001 \times 13131 = 13144131 + 13144131 := \mathbf{26288262}$
 $13231 \times 1001 + 1001 \times 13231 = 13244231 + 13244231 := \mathbf{26488462}$
 $10001 \times 1241 + 1421 \times 10001 = 12411241 + 14211421 := \mathbf{26622662}$
 $13331 \times 1001 + 1001 \times 13331 = 13344331 + 13344331 := \mathbf{26688662}$
 $10101 \times 1331 + 1331 \times 10101 = 13444431 + 13444431 := \mathbf{26888862}$
 $11011 \times 1221 + 1221 \times 11011 = 13444431 + 13444431 := \mathbf{26888862}$
 $13431 \times 1001 + 1001 \times 13431 = 13444431 + 13444431 := \mathbf{26888862}$
 $10001 \times 1341 + 1431 \times 10001 = 13411341 + 14311431 := \mathbf{27722772}$
 $10001 \times 1441 + 1441 \times 10001 = 14411441 + 14411441 := \mathbf{28822882}$
 $10201 \times 1002 + 2001 \times 10201 = 10221402 + 20412201 := \mathbf{30633603}$
 $10402 \times 1001 + 1001 \times 20401 = 10412402 + 20421401 := \mathbf{30833803}$
 $10202 \times 1101 + 1011 \times 20201 = 11232402 + 20423211 := \mathbf{31655613}$
 $10211 \times 2001 + 1002 \times 11201 = 20432211 + 11223402 := \mathbf{31655613}$

$$\begin{aligned}
10201 \times 1012 + 2101 \times 10201 &= 10323412 + 21432301 := \mathbf{31755713} & 11212 \times 1101 + 1011 \times 21211 &= 12344412 + 21444321 := \mathbf{33788733} \\
10412 \times 1001 + 1001 \times 21401 &= 10422412 + 21422401 := \mathbf{31844813} & 10432 \times 1001 + 1001 \times 23401 &= 10442432 + 23424401 := \mathbf{33866833} \\
11402 \times 1001 + 1001 \times 20411 &= 11413402 + 20431411 := \mathbf{31844813} & 11422 \times 1001 + 1001 \times 22411 &= 11433422 + 22433411 := \mathbf{33866833} \\
12002 \times 1001 + 1001 \times 20021 &= 12014002 + 20041021 := \mathbf{32055023} & 12412 \times 1001 + 1001 \times 21421 &= 12424412 + 21442421 := \mathbf{33866833} \\
12102 \times 1001 + 1001 \times 20121 &= 12114102 + 20141121 := \mathbf{32255223} & 12202 \times 1101 + 1011 \times 20221 &= 13434402 + 20443431 := \mathbf{33877833} \\
10002 \times 1201 + 1021 \times 20001 &= 12012402 + 20421021 := \mathbf{32433423} & 10021 \times 1002 + 2001 \times 12001 &= 10041042 + 24014001 := \mathbf{34055043} \\
12202 \times 1001 + 1001 \times 20221 &= 12214202 + 20241221 := \mathbf{32455423} & 11032 \times 1001 + 1001 \times 23011 &= 11043032 + 23034011 := \mathbf{34077043} \\
10111 \times 2101 + 1012 \times 11101 &= 21243211 + 11234212 := \mathbf{32477423} & 12022 \times 1001 + 1001 \times 22021 &= 12034022 + 22043021 := \mathbf{34077043} \\
10101 \times 1202 + 2021 \times 10101 &= 12141402 + 20414121 := \mathbf{32555523} & 12002 \times 1011 + 1101 \times 20021 &= 12134022 + 22043121 := \mathbf{34177143} \\
10202 \times 1011 + 1101 \times 20201 &= 10314222 + 22241301 := \mathbf{32555523} & 10002 \times 1021 + 1201 \times 20001 &= 10212042 + 24021201 := \mathbf{34233243} \\
10211 \times 1002 + 2001 \times 11201 &= 10231422 + 22413201 := \mathbf{32644623} & 11011 \times 1012 + 2101 \times 11011 &= 11143132 + 23134111 := \mathbf{34277243} \\
12302 \times 1001 + 1001 \times 20321 &= 12314302 + 20341321 := \mathbf{32655623} & 11011 \times 1102 + 2011 \times 11011 &= 12134122 + 22143121 := \mathbf{34277243} \\
10212 \times 1101 + 1011 \times 21201 &= 11243412 + 21434211 := \mathbf{32677623} & 11132 \times 1001 + 1001 \times 23111 &= 11143132 + 23134111 := \mathbf{34277243} \\
11202 \times 1101 + 1011 \times 20211 &= 12333402 + 20433321 := \mathbf{32766723} & 12122 \times 1001 + 1001 \times 22121 &= 12134122 + 22143121 := \mathbf{34277243} \\
10422 \times 1001 + 1001 \times 22401 &= 10432422 + 22423401 := \mathbf{32855823} & 10022 \times 1011 + 1101 \times 22001 &= 10132242 + 24223101 := \mathbf{34355343} \\
11412 \times 1001 + 1001 \times 21411 &= 11423412 + 21432411 := \mathbf{32855823} & 10121 \times 1002 + 2001 \times 12101 &= 10141242 + 24214101 := \mathbf{34355343} \\
12402 \times 1001 + 1001 \times 20421 &= 12414402 + 20441421 := \mathbf{32855823} & 10001 \times 1042 + 2401 \times 10001 &= 10421042 + 24012401 := \mathbf{34433443} \\
10032 \times 1001 + 1001 \times 23001 &= 10042032 + 23024001 := \mathbf{33066033} & 10001 \times 1402 + 2041 \times 10001 &= 14021402 + 20412041 := \mathbf{34433443} \\
12012 \times 1001 + 1001 \times 21021 &= 12024012 + 21042021 := \mathbf{33066033} & 10011 \times 1022 + 2201 \times 11001 &= 10231242 + 24213201 := \mathbf{34444443} \\
10132 \times 1001 + 1001 \times 23101 &= 10142132 + 23124101 := \mathbf{33266233} & 10102 \times 1021 + 1201 \times 20101 &= 10314142 + 24141301 := \mathbf{34455443} \\
12112 \times 1001 + 1001 \times 21121 &= 12124112 + 21142121 := \mathbf{33266233} & 10011 \times 2211 + 1122 \times 11001 &= 22134321 + 12343122 := \mathbf{34477443} \\
10011 \times 2201 + 1022 \times 11001 &= 22034211 + 11243022 := \mathbf{33277233} & 11112 \times 1011 + 1101 \times 21111 &= 11234232 + 23243211 := \mathbf{34477443} \\
10022 \times 1101 + 1011 \times 22001 &= 11034222 + 22243011 := \mathbf{33277233} & 11232 \times 1001 + 1001 \times 23211 &= 11243232 + 23234211 := \mathbf{34477443} \\
11012 \times 1101 + 1011 \times 21011 &= 12124212 + 21242121 := \mathbf{33366333} & 12222 \times 1001 + 1001 \times 22221 &= 12234222 + 22243221 := \mathbf{34477443} \\
11102 \times 1011 + 1101 \times 20111 &= 11224122 + 22142211 := \mathbf{33366333} & 10002 \times 1211 + 1121 \times 20001 &= 12112422 + 22421121 := \mathbf{34533543} \\
12002 \times 1101 + 1011 \times 20021 &= 13214202 + 20241231 := \mathbf{33455433} & 10122 \times 1011 + 1101 \times 22101 &= 10233342 + 24333201 := \mathbf{34566543} \\
10012 \times 1201 + 1021 \times 21001 &= 12024412 + 21442021 := \mathbf{33466433} & 11111 \times 1012 + 2101 \times 11111 &= 11244332 + 23344211 := \mathbf{34588543} \\
10111 \times 1102 + 2011 \times 11101 &= 11142322 + 22324111 := \mathbf{33466433} & 11111 \times 1102 + 2011 \times 11111 &= 12244322 + 22344221 := \mathbf{34588543} \\
10232 \times 1001 + 1001 \times 23201 &= 10242232 + 23224201 := \mathbf{33466433} & 10011 \times 2031 + 1302 \times 11001 &= 20332341 + 14323302 := \mathbf{34655643} \\
12212 \times 1001 + 1001 \times 21221 &= 12224212 + 21242221 := \mathbf{33466433} & 10221 \times 1002 + 2001 \times 12201 &= 10241442 + 24414201 := \mathbf{34655643} \\
10122 \times 1101 + 1011 \times 22101 &= 11144322 + 22344111 := \mathbf{33488433} & 10111 \times 1112 + 2111 \times 11101 &= 11243432 + 23434211 := \mathbf{34677643} \\
11112 \times 1101 + 1011 \times 21111 &= 12234312 + 21343221 := \mathbf{33577533} & 10112 \times 1111 + 1111 \times 21101 &= 11234432 + 23443211 := \mathbf{34677643} \\
11002 \times 1201 + 1021 \times 20011 &= 13213402 + 20431231 := \mathbf{33644633} & 11102 \times 1111 + 1111 \times 20111 &= 12334322 + 22343321 := \mathbf{34677643} \\
10101 \times 1032 + 2301 \times 10101 &= 10424232 + 23242401 := \mathbf{33666633} & 11332 \times 1001 + 1001 \times 23311 &= 11343332 + 23334311 := \mathbf{34677643} \\
10101 \times 1212 + 2121 \times 10101 &= 12242412 + 21424221 := \mathbf{33666633} & 12322 \times 1001 + 1001 \times 22321 &= 12334322 + 22343321 := \mathbf{34677643} \\
10212 \times 1011 + 1101 \times 21201 &= 10324332 + 23342301 := \mathbf{33666633} & 10111 \times 1022 + 2201 \times 11101 &= 10333442 + 24433301 := \mathbf{34766743} \\
10332 \times 1001 + 1001 \times 23301 &= 10342332 + 23324301 := \mathbf{33666633} & 10101 \times 1132 + 2311 \times 10101 &= 11434332 + 23343411 := \mathbf{34777743} \\
11211 \times 1002 + 2001 \times 11211 &= 11233422 + 22433211 := \mathbf{33666633} & 10101 \times 1222 + 2221 \times 10101 &= 12343422 + 22434321 := \mathbf{34777743} \\
12102 \times 1101 + 1011 \times 20121 &= 13324302 + 20342331 := \mathbf{33666633} & 10222 \times 1011 + 1101 \times 22201 &= 10334442 + 24443301 := \mathbf{34777743} \\
12312 \times 1001 + 1001 \times 21321 &= 12324312 + 21342321 := \mathbf{33666633} & 12002 \times 1201 + 1021 \times 20021 &= 14414402 + 20441441 := \mathbf{34855843} \\
10111 \times 2111 + 1112 \times 11101 &= 21344321 + 12344312 := \mathbf{33688633} & 11432 \times 1001 + 1001 \times 23411 &= 11443432 + 23434411 := \mathbf{34877843} \\
10111 \times 2021 + 1202 \times 11101 &= 20434331 + 13343402 := \mathbf{33777733} & 12422 \times 1001 + 1001 \times 22421 &= 12434422 + 22443421 := \mathbf{34877843} \\
10202 \times 1111 + 1111 \times 20201 &= 11334422 + 22443311 := \mathbf{33777733} & 11021 \times 1002 + 2001 \times 12011 &= 11043042 + 24034011 := \mathbf{35077053}
\end{aligned}$$

$12032 \times 1001 + 1001 \times 23021 = 12044032 + 23044021 := 35088053$
 $10021 \times 1102 + 2011 \times 12001 = 11043142 + 24134011 := 35177153$
 $11002 \times 1021 + 1201 \times 20011 = 11233042 + 24033211 := 35266253$
 $12012 \times 1011 + 1101 \times 21021 = 12144132 + 23144121 := 35288253$
 $12132 \times 1001 + 1001 \times 23121 = 12144132 + 23144121 := 35288253$
 $10011 \times 1302 + 2031 \times 11001 = 13034322 + 22343031 := 35377353$
 $11022 \times 1011 + 1101 \times 22011 = 11143242 + 24234111 := 35377353$
 $11121 \times 1002 + 2001 \times 12111 = 11143242 + 24234111 := 35377353$
 $10002 \times 1121 + 1211 \times 20001 = 11212242 + 24221211 := 35433453$
 $11011 \times 1112 + 2111 \times 11011 = 12244232 + 23244221 := 35488453$
 $12232 \times 1001 + 1001 \times 23221 = 12244232 + 23244221 := 35488453$
 $10001 \times 1142 + 2411 \times 10001 = 11421142 + 24112411 := 35533553$
 $10001 \times 1412 + 2141 \times 10001 = 14121412 + 21412141 := 35533553$
 $10011 \times 1122 + 2211 \times 11001 = 11232342 + 24323211 := 35555553$
 $10022 \times 1111 + 1111 \times 22001 = 11134442 + 24443111 := 35577553$
 $11012 \times 1111 + 1111 \times 21011 = 12234332 + 23343221 := 35577553$
 $12002 \times 1111 + 1111 \times 20021 = 13334222 + 22243331 := 35577553$
 $11122 \times 1011 + 1101 \times 22111 = 11244342 + 24344211 := 35588553$
 $10102 \times 1121 + 1211 \times 20101 = 11324342 + 24342311 := 35666653$
 $10011 \times 2221 + 1222 \times 11001 = 22234431 + 13443222 := 35677653$
 $11221 \times 1002 + 2001 \times 12211 = 11243442 + 24434211 := 35677653$
 $12332 \times 1001 + 1001 \times 23321 = 12344332 + 23344321 := 35688653$
 $11002 \times 1211 + 1121 \times 20011 = 13323422 + 22432331 := 35755753$
 $10011 \times 2131 + 1312 \times 11001 = 21333441 + 14433312 := 35766753$
 $10101 \times 1232 + 2321 \times 10101 = 12444432 + 23444421 := 35888853$
 $12432 \times 1001 + 1001 \times 23421 = 12444432 + 23444421 := 35888853$
 $11002 \times 1121 + 1211 \times 20011 = 12333242 + 24233321 := 36566563$
 $10011 \times 1312 + 2131 \times 11001 = 13134432 + 23443131 := 36577563$
 $10001 \times 1242 + 2421 \times 10001 = 12421242 + 24212421 := 36633663$
 $10001 \times 1422 + 2241 \times 10001 = 14221422 + 22412241 := 36633663$
 $10002 \times 1221 + 1221 \times 20001 = 12212442 + 24421221 := 36633663$
 $10011 \times 1222 + 2221 \times 11001 = 12233442 + 24433221 := 36666663$
 $10001 \times 1342 + 2431 \times 10001 = 13421342 + 24312431 := 37733773$
 $10001 \times 1432 + 2341 \times 10001 = 14321432 + 23412341 := 37733773$
 $11002 \times 1221 + 1221 \times 20011 = 13433442 + 24433431 := 37866873$
 $10001 \times 1442 + 2441 \times 10001 = 14421442 + 24412441 := 38833883$
 $10002 \times 2001 + 1002 \times 20001 = 20014002 + 20041002 := 40055004$
 $10102 \times 2001 + 1002 \times 20101 = 20214102 + 20141202 := 40355304$
 $10202 \times 2001 + 1002 \times 20201 = 20414202 + 20241402 := 40655604$
 $10201 \times 2002 + 2002 \times 10201 = 20422402 + 20422402 := 40844804$
 $10403 \times 1001 + 1001 \times 30401 = 10413403 + 30431401 := 40844804$
 $20402 \times 1001 + 1001 \times 20402 = 20422402 + 20422402 := 40844804$
 $11003 \times 1001 + 1001 \times 30011 = 11014003 + 30041011 := 41055014$
 $10011 \times 3001 + 1003 \times 11001 = 30043011 + 11034003 := 41077014$
 $10012 \times 2001 + 1002 \times 21001 = 20034012 + 21043002 := 41077014$
 $10002 \times 2101 + 1012 \times 20001 = 21014202 + 20241012 := 41255214$
 $11103 \times 1001 + 1001 \times 30111 = 11114103 + 30141111 := 41255214$
 $10112 \times 2001 + 1002 \times 21101 = 20234112 + 21143202 := 41377314$
 $11203 \times 1001 + 1001 \times 30211 = 11214203 + 30241211 := 41455414$
 $10111 \times 3001 + 1003 \times 11101 = 30343111 + 11134303 := 41477414$
 $10101 \times 1103 + 3011 \times 10101 = 11141403 + 30414111 := 41555514$
 $10103 \times 1101 + 1011 \times 30101 = 11123403 + 30432111 := 41555514$
 $10102 \times 2101 + 1012 \times 20101 = 21224302 + 20342212 := 41566514$
 $11303 \times 1001 + 1001 \times 30311 = 11314303 + 30341311 := 41655614$
 $10212 \times 2001 + 1002 \times 21201 = 20434212 + 21243402 := 41677614$
 $10413 \times 1001 + 1001 \times 31401 = 10423413 + 31432401 := 41855814$
 $11403 \times 1001 + 1001 \times 30411 = 11414403 + 30441411 := 41855814$
 $20412 \times 1001 + 1001 \times 21402 = 20432412 + 21423402 := 41855814$
 $10202 \times 2101 + 1012 \times 20201 = 21434402 + 20443412 := 41877814$
 $10011 \times 2002 + 2002 \times 11001 = 20042022 + 22024002 := 42066024$
 $11013 \times 1001 + 1001 \times 31011 = 11024013 + 31042011 := 42066024$
 $20022 \times 1001 + 1001 \times 22002 = 20042022 + 22024002 := 42066024$
 $10002 \times 2011 + 1102 \times 20001 = 20114022 + 22041102 := 42155124$
 $10011 \times 3101 + 1013 \times 11001 = 31044111 + 11144013 := 42188124$
 $11113 \times 1001 + 1001 \times 31111 = 11124113 + 31142111 := 42266224$
 $20122 \times 1001 + 1001 \times 22102 = 20142122 + 22124102 := 42266224$
 $10011 \times 3011 + 1103 \times 11001 = 30143121 + 12134103 := 42277224$
 $10013 \times 1101 + 1011 \times 31001 = 11024313 + 31342011 := 42366324$
 $10002 \times 2201 + 1022 \times 20001 = 22014402 + 20441022 := 42455424$
 $11003 \times 1101 + 1011 \times 30011 = 12114303 + 30341121 := 42455424$
 $10111 \times 2002 + 2002 \times 11101 = 20242222 + 22242402 := 42466424$
 $11213 \times 1001 + 1001 \times 31211 = 11224213 + 31242211 := 42466424$
 $20222 \times 1001 + 1001 \times 22202 = 20242222 + 22242402 := 42466424$
 $10113 \times 1101 + 1011 \times 31101 = 11134413 + 31443111 := 42577524$
 $10101 \times 1113 + 3111 \times 10101 = 11242413 + 31424211 := 42666624$
 $10101 \times 2022 + 2202 \times 10101 = 20424222 + 22242402 := 42666624$
 $11103 \times 1101 + 1011 \times 30111 = 12224403 + 30442221 := 42666624$
 $11313 \times 1001 + 1001 \times 31311 = 11324313 + 31342311 := 42666624$
 $20202 \times 1011 + 1101 \times 20202 = 20424222 + 22242402 := 42666624$
 $20322 \times 1001 + 1001 \times 22302 = 20342322 + 22324302 := 42666624$
 $10111 \times 3011 + 1103 \times 11101 = 30444221 + 12244403 := 42688624$
 $10211 \times 2002 + 2002 \times 11201 = 20442422 + 22424402 := 42866824$
 $10423 \times 1001 + 1001 \times 32401 = 10433423 + 32433401 := 42866824$
 $11413 \times 1001 + 1001 \times 31411 = 11424413 + 31442411 := 42866824$
 $20422 \times 1001 + 1001 \times 22402 = 20442422 + 22424402 := 42866824$
 $21412 \times 1001 + 1001 \times 21412 = 21433412 + 21433412 := 42866824$

$$\begin{aligned}
10011 \times 1003 + 3001 \times 11001 &= 10041033 + 33014001 := \mathbf{43055034} & 10011 \times 2112 + 2112 \times 11001 &= 21143232 + 23234112 := \mathbf{44377344} \\
10033 \times 1001 + 1001 \times 33001 &= 10043033 + 33034001 := \mathbf{43077034} & 21012 \times 1011 + 1101 \times 21012 &= 21243132 + 23134212 := \mathbf{44377344} \\
11023 \times 1001 + 1001 \times 32011 &= 11034023 + 32043011 := \mathbf{43077034} & 10001 \times 1043 + 3401 \times 10001 &= 10431043 + 34013401 := \mathbf{44444444} \\
21022 \times 1001 + 1001 \times 22012 &= 21043022 + 22034012 := \mathbf{43077034} & 10001 \times 1403 + 3041 \times 10001 &= 14031403 + 30413041 := \mathbf{44444444} \\
10011 \times 2102 + 2012 \times 11001 &= 21043122 + 22134012 := \mathbf{43177134} & 10001 \times 2042 + 2402 \times 10001 &= 20422042 + 24022402 := \mathbf{44444444} \\
10011 \times 2012 + 2102 \times 11001 &= 20142132 + 23124102 := \mathbf{43266234} & 20002 \times 1021 + 1201 \times 20002 &= 20422042 + 24022402 := \mathbf{44444444} \\
10012 \times 2011 + 1102 \times 21001 &= 20134132 + 23143102 := \mathbf{43277234} & 10011 \times 2022 + 2202 \times 11001 &= 20242242 + 24224202 := \mathbf{44466444} \\
10133 \times 1001 + 1001 \times 33101 &= 10143133 + 33134101 := \mathbf{43277234} & 10113 \times 1011 + 1101 \times 31101 &= 10224243 + 34242201 := \mathbf{44466444} \\
11123 \times 1001 + 1001 \times 32111 &= 11134123 + 32143111 := \mathbf{43277234} & 20022 \times 1011 + 1101 \times 22002 &= 20242242 + 24224202 := \mathbf{44466444} \\
21122 \times 1001 + 1001 \times 22112 &= 21143122 + 22134112 := \mathbf{43277234} & 11111 \times 1003 + 3001 \times 11111 &= 11144333 + 33344111 := \mathbf{44488444} \\
10002 \times 2111 + 1112 \times 20001 &= 21114222 + 22241112 := \mathbf{43355334} & 11111 \times 2002 + 2002 \times 11111 &= 22244222 + 22244222 := \mathbf{44488444} \\
10103 \times 1011 + 1101 \times 30101 &= 10214133 + 33141201 := \mathbf{43355334} & 11233 \times 1001 + 1001 \times 33211 &= 11244233 + 33244211 := \mathbf{44488444} \\
10011 \times 3111 + 1113 \times 11001 &= 31144221 + 12244113 := \mathbf{43388334} & 22222 \times 1001 + 1001 \times 22222 &= 22244222 + 22244222 := \mathbf{44488444} \\
10111 \times 1003 + 3001 \times 11101 &= 10141333 + 33314101 := \mathbf{43455434} & 10002 \times 2211 + 1122 \times 20001 &= 22114422 + 22441122 := \mathbf{44555544} \\
10011 \times 3021 + 1203 \times 11001 &= 30243231 + 13234203 := \mathbf{43477434} & 10011 \times 3121 + 1213 \times 11001 &= 31244331 + 13344213 := \mathbf{44588544} \\
10233 \times 1001 + 1001 \times 33201 &= 10243233 + 33234201 := \mathbf{43477434} & 21112 \times 1011 + 1101 \times 21112 &= 21344232 + 23244312 := \mathbf{44588544} \\
11223 \times 1001 + 1001 \times 32211 &= 11234223 + 32243211 := \mathbf{43477434} & 10103 \times 1111 + 1111 \times 30101 &= 11224433 + 33442211 := \mathbf{44666644} \\
20112 \times 1101 + 1011 \times 21102 &= 22143312 + 21334122 := \mathbf{43477434} & 10111 \times 1013 + 3101 \times 11101 &= 10242443 + 34424201 := \mathbf{44666644} \\
21222 \times 1001 + 1001 \times 22212 &= 21243222 + 22234212 := \mathbf{43477434} & 10011 \times 3031 + 1303 \times 11001 &= 30343341 + 14334303 := \mathbf{44677644} \\
10111 \times 2012 + 2102 \times 11101 &= 20343332 + 23334302 := \mathbf{43677634} & 20122 \times 1011 + 1101 \times 22102 &= 20343342 + 24334302 := \mathbf{44677644} \\
10333 \times 1001 + 1001 \times 33301 &= 10343333 + 33334301 := \mathbf{43677634} & 11333 \times 1001 + 1001 \times 33311 &= 11344333 + 33344311 := \mathbf{44688644} \\
11323 \times 1001 + 1001 \times 32311 &= 11334323 + 32343311 := \mathbf{43677634} & 22322 \times 1001 + 1001 \times 22322 &= 22344322 + 22344322 := \mathbf{44688644} \\
21322 \times 1001 + 1001 \times 22312 &= 21343322 + 22334312 := \mathbf{43677634} & 10101 \times 1133 + 3311 \times 10101 &= 11444433 + 33444411 := \mathbf{44888844} \\
10101 \times 1033 + 3301 \times 10101 &= 10434333 + 33343401 := \mathbf{43777734} & 10101 \times 2222 + 2222 \times 10101 &= 22444422 + 22444422 := \mathbf{44888844} \\
10101 \times 1123 + 3211 \times 10101 &= 11343423 + 32434311 := \mathbf{43777734} & 10111 \times 2022 + 2202 \times 11101 &= 20444442 + 24444402 := \mathbf{44888844} \\
10101 \times 2122 + 2212 \times 10101 &= 21434322 + 22343412 := \mathbf{43777734} & 11211 \times 2002 + 2002 \times 11211 &= 22444422 + 22444422 := \mathbf{44888844} \\
20212 \times 1011 + 1101 \times 21202 &= 20434332 + 23343402 := \mathbf{43777734} & 11433 \times 1001 + 1001 \times 33411 &= 11444433 + 33444411 := \mathbf{44888844} \\
10433 \times 1001 + 1001 \times 33401 &= 10443433 + 33434401 := \mathbf{43877834} & 20202 \times 1111 + 1111 \times 20202 &= 22444422 + 22444422 := \mathbf{44888844} \\
11423 \times 1001 + 1001 \times 32411 &= 11434423 + 32443411 := \mathbf{43877834} & 20222 \times 1011 + 1101 \times 22202 &= 20444442 + 24444402 := \mathbf{44888844} \\
21422 \times 1001 + 1001 \times 22412 &= 21443422 + 22434412 := \mathbf{43877834} & 22422 \times 1001 + 1001 \times 22422 &= 22444422 + 22444422 := \mathbf{44888844} \\
11011 \times 1003 + 3001 \times 11011 &= 11044033 + 33044011 := \mathbf{44088044} & 10011 \times 1203 + 3021 \times 11001 &= 12043233 + 33234021 := \mathbf{45277254} \\
11011 \times 2002 + 2002 \times 11011 &= 22044022 + 22044022 := \mathbf{44088044} & 11013 \times 1011 + 1101 \times 31011 &= 11134143 + 34143111 := \mathbf{45277254} \\
11033 \times 1001 + 1001 \times 33011 &= 11044033 + 33044011 := \mathbf{44088044} & 10011 \times 1113 + 3111 \times 11001 &= 11142243 + 34224111 := \mathbf{45366354} \\
22022 \times 1001 + 1001 \times 22022 &= 22044022 + 22044022 := \mathbf{44088044} & 10002 \times 2121 + 1212 \times 20001 &= 21214242 + 24241212 := \mathbf{45455454} \\
10011 \times 1103 + 3011 \times 11001 &= 11042133 + 33124011 := \mathbf{44166144} & 20012 \times 1201 + 1021 \times 21002 &= 24034412 + 21443042 := \mathbf{45477454} \\
11003 \times 1011 + 1101 \times 30011 &= 11124033 + 33042111 := \mathbf{44166144} & 10011 \times 2212 + 2122 \times 11001 &= 22144332 + 23344122 := \mathbf{45488454} \\
10002 \times 2021 + 1202 \times 20001 &= 20214042 + 24041202 := \mathbf{44255244} & 10001 \times 1143 + 3411 \times 10001 &= 11431143 + 34113411 := \mathbf{45544554} \\
10011 \times 1013 + 3101 \times 11001 &= 10141143 + 34114101 := \mathbf{44255244} & 10001 \times 1413 + 3141 \times 10001 &= 14131413 + 31413141 := \mathbf{45544554} \\
10013 \times 1011 + 1101 \times 31001 &= 10123143 + 34132101 := \mathbf{44255244} & 10001 \times 2142 + 2412 \times 10001 &= 21422142 + 24122412 := \mathbf{45544554} \\
10011 \times 2202 + 2022 \times 11001 &= 22044222 + 22244022 := \mathbf{44288244} & 10013 \times 1111 + 1111 \times 31001 &= 11124443 + 34442111 := \mathbf{45566554} \\
11133 \times 1001 + 1001 \times 33111 &= 11144133 + 33144111 := \mathbf{44288244} & 11003 \times 1111 + 1111 \times 30011 &= 12224333 + 33342221 := \mathbf{45566554} \\
20022 \times 1101 + 1011 \times 22002 &= 22044222 + 22244022 := \mathbf{44288244} & 10011 \times 2122 + 2212 \times 11001 &= 21243342 + 24334212 := \mathbf{45577554} \\
22122 \times 1001 + 1001 \times 22122 &= 22144122 + 22144122 := \mathbf{44288244} & 10011 \times 3131 + 1313 \times 11001 &= 31344441 + 14444313 := \mathbf{45788754}
\end{aligned}$$

$$\begin{aligned}
20112 \times 1111 + 1111 \times 21102 &= 22344432 + 23444322 := \mathbf{45788754} & 10101 \times 2103 + 3012 \times 10101 &= 21242403 + 30424212 := \mathbf{51666615} \\
10011 \times 1303 + 3031 \times 11001 &= 13044333 + 33344031 := \mathbf{46388364} & 10314 \times 1001 + 1001 \times 41301 &= 10324314 + 41342301 := \mathbf{51666615} \\
10011 \times 1213 + 3121 \times 11001 &= 12143343 + 34334121 := \mathbf{46477464} & 11202 \times 1002 + 2001 \times 20211 &= 11224404 + 40442211 := \mathbf{51666615} \\
10001 \times 1243 + 3421 \times 10001 &= 12431243 + 34213421 := \mathbf{46644664} & 21303 \times 1001 + 1001 \times 30312 &= 21324303 + 30342312 := \mathbf{51666615} \\
10001 \times 1423 + 3241 \times 10001 &= 14231423 + 32413241 := \mathbf{46644664} & 10414 \times 1001 + 1001 \times 41401 &= 10424414 + 41442401 := \mathbf{51866815} \\
10001 \times 2242 + 2422 \times 10001 &= 22422242 + 24222422 := \mathbf{46644664} & 20413 \times 1001 + 1001 \times 31402 &= 20433413 + 31433402 := \mathbf{51866815} \\
20002 \times 1121 + 1211 \times 20002 &= 22422242 + 24222422 := \mathbf{46644664} & 21403 \times 1001 + 1001 \times 30412 &= 21424403 + 30442412 := \mathbf{51866815} \\
10002 \times 2221 + 1222 \times 20001 &= 22214442 + 24441222 := \mathbf{46655664} & 10012 \times 1002 + 2001 \times 21001 &= 10032024 + 42023001 := \mathbf{52055025} \\
10011 \times 2222 + 2222 \times 11001 &= 22244442 + 24444222 := \mathbf{46688664} & 10024 \times 1001 + 1001 \times 42001 &= 10034024 + 42043001 := \mathbf{52077025} \\
20022 \times 1111 + 1111 \times 22002 &= 22244442 + 24444222 := \mathbf{46688664} & 20023 \times 1001 + 1001 \times 32002 &= 20043023 + 32034002 := \mathbf{52077025} \\
21012 \times 1111 + 1111 \times 21012 &= 23344332 + 23344332 := \mathbf{46688664} & 21013 \times 1001 + 1001 \times 31012 &= 21034013 + 31043012 := \mathbf{52077025} \\
10011 \times 1313 + 3131 \times 11001 &= 13144443 + 34444131 := \mathbf{47588574} & 10002 \times 1012 + 2101 \times 20001 &= 10122024 + 42022101 := \mathbf{52144125} \\
10001 \times 1343 + 3431 \times 10001 &= 13431343 + 34313431 := \mathbf{47744774} & 10001 \times 1024 + 4201 \times 10001 &= 10241024 + 42014201 := \mathbf{52255225} \\
10001 \times 1433 + 3341 \times 10001 &= 14331433 + 33413341 := \mathbf{47744774} & 10001 \times 1114 + 4111 \times 10001 &= 11141114 + 41114111 := \mathbf{52255225} \\
10001 \times 2342 + 2432 \times 10001 &= 23422342 + 24322432 := \mathbf{47744774} & 10001 \times 1204 + 4021 \times 10001 &= 12041204 + 40214021 := \mathbf{52255225} \\
10001 \times 1443 + 3441 \times 10001 &= 14431443 + 34413441 := \mathbf{48844884} & 10124 \times 1001 + 1001 \times 42101 &= 10134124 + 42143101 := \mathbf{52277225} \\
10001 \times 2442 + 2442 \times 10001 &= 24422442 + 24422442 := \mathbf{48844884} & 20123 \times 1001 + 1001 \times 32102 &= 20143123 + 32134102 := \mathbf{52277225} \\
20002 \times 1221 + 1221 \times 20002 &= 24422442 + 24422442 := \mathbf{48844884} & 21113 \times 1001 + 1001 \times 31112 &= 21134113 + 31143112 := \mathbf{52277225} \\
10002 \times 1002 + 2001 \times 20001 &= 10022004 + 40022001 := \mathbf{50044005} & 10112 \times 1002 + 2001 \times 21101 &= 10132224 + 42223101 := \mathbf{52355325} \\
10001 \times 1004 + 4001 \times 10001 &= 10041004 + 40014001 := \mathbf{50055005} & 11002 \times 1102 + 2011 \times 20011 &= 12124204 + 40242121 := \mathbf{52366325} \\
10004 \times 1001 + 1001 \times 40001 &= 10014004 + 40041001 := \mathbf{50055005} & 10002 \times 1202 + 2021 \times 20001 &= 12022404 + 40422021 := \mathbf{52444425} \\
10104 \times 1001 + 1001 \times 40101 &= 10114104 + 40141101 := \mathbf{50255205} & 10102 \times 1012 + 2101 \times 20101 &= 10223224 + 42232201 := \mathbf{52455425} \\
10102 \times 1002 + 2001 \times 20101 &= 10122204 + 40222101 := \mathbf{50344305} & 10224 \times 1001 + 1001 \times 42201 &= 10234224 + 42243201 := \mathbf{52477425} \\
10204 \times 1001 + 1001 \times 40201 &= 10214204 + 40241201 := \mathbf{50455405} & 20223 \times 1001 + 1001 \times 32202 &= 20243223 + 32234202 := \mathbf{52477425} \\
10101 \times 1004 + 4001 \times 10101 &= 10141404 + 40414101 := \mathbf{50555505} & 21213 \times 1001 + 1001 \times 31212 &= 21234213 + 31243212 := \mathbf{52477425} \\
10202 \times 1002 + 2001 \times 20201 &= 10222404 + 40422201 := \mathbf{50644605} & 20103 \times 1101 + 1011 \times 30102 &= 22133403 + 30433122 := \mathbf{52566525} \\
10304 \times 1001 + 1001 \times 40301 &= 10314304 + 40341301 := \mathbf{50655605} & 10212 \times 1002 + 2001 \times 21201 &= 10232424 + 42423201 := \mathbf{52655625} \\
10404 \times 1001 + 1001 \times 40401 &= 10414404 + 40441401 := \mathbf{50855805} & 10324 \times 1001 + 1001 \times 42301 &= 10334324 + 42343301 := \mathbf{52677625} \\
20403 \times 1001 + 1001 \times 30402 &= 20423403 + 30432402 := \mathbf{50855805} & 11102 \times 1102 + 2011 \times 20111 &= 12234404 + 40443221 := \mathbf{52677625} \\
10014 \times 1001 + 1001 \times 41001 &= 10024014 + 41042001 := \mathbf{51066015} & 20323 \times 1001 + 1001 \times 32302 &= 20343323 + 32334302 := \mathbf{52677625} \\
11002 \times 1002 + 2001 \times 20011 &= 11024004 + 40042011 := \mathbf{51066015} & 21313 \times 1001 + 1001 \times 31312 &= 21334313 + 31343312 := \mathbf{52677625} \\
21003 \times 1001 + 1001 \times 30012 &= 21024003 + 30042012 := \mathbf{51066015} & 10202 \times 1012 + 2101 \times 20201 &= 10324424 + 42442301 := \mathbf{52766725} \\
10001 \times 1014 + 4101 \times 10001 &= 10141014 + 41014101 := \mathbf{51155115} & 10101 \times 1024 + 4201 \times 10101 &= 10343424 + 42434301 := \mathbf{52777725} \\
10001 \times 1104 + 4011 \times 10001 &= 11041104 + 40114011 := \mathbf{51155115} & 10101 \times 2023 + 3202 \times 10101 &= 20434323 + 32343402 := \mathbf{52777725} \\
10002 \times 1102 + 2011 \times 20001 &= 11022204 + 40222011 := \mathbf{51244215} & 10101 \times 2113 + 3112 \times 10101 &= 21343413 + 31434312 := \mathbf{52777725} \\
10114 \times 1001 + 1001 \times 41101 &= 10124114 + 41142101 := \mathbf{51266215} & 10424 \times 1001 + 1001 \times 42401 &= 10434424 + 42443401 := \mathbf{52877825} \\
21103 \times 1001 + 1001 \times 30112 &= 21124103 + 30142112 := \mathbf{51266215} & 20423 \times 1001 + 1001 \times 32402 &= 20443423 + 32434402 := \mathbf{52877825} \\
11102 \times 1002 + 2001 \times 20111 &= 11124204 + 40242111 := \mathbf{51366315} & 21413 \times 1001 + 1001 \times 31412 &= 21434413 + 31443412 := \mathbf{52877825} \\
10004 \times 1101 + 1011 \times 40001 &= 11014404 + 40441011 := \mathbf{51455415} & 11012 \times 1002 + 2001 \times 21011 &= 11034024 + 42043011 := \mathbf{53077035} \\
10214 \times 1001 + 1001 \times 41201 &= 10224214 + 41242201 := \mathbf{51466415} & 10034 \times 1001 + 1001 \times 43001 &= 10044034 + 43044001 := \mathbf{53088035} \\
21203 \times 1001 + 1001 \times 30212 &= 21224203 + 30242212 := \mathbf{51466415} & 21023 \times 1001 + 1001 \times 32012 &= 21044023 + 32044012 := \mathbf{53088035} \\
10102 \times 1102 + 2011 \times 20101 &= 11132404 + 40423111 := \mathbf{51555515} & 11002 \times 1012 + 2101 \times 20011 &= 11134024 + 42043111 := \mathbf{53177135} \\
10101 \times 1014 + 4101 \times 10101 &= 10242414 + 41424201 := \mathbf{51666615} & 10012 \times 1102 + 2011 \times 21001 &= 11033224 + 42233011 := \mathbf{53266235}
\end{aligned}$$

$10134 \times 1001 + 1001 \times 43101 = 10144134 + 43144101 := 53288235$ $10112 \times 1012 + 2101 \times 21101 = 10233344 + 44333201 := 54566545$
 $21123 \times 1001 + 1001 \times 32112 = 21144123 + 32144112 := 53288235$ $20113 \times 1011 + 1101 \times 31102 = 20334243 + 34243302 := 54577545$
 $10002 \times 1112 + 2111 \times 20001 = 11122224 + 42222111 := 53344335$ $10222 \times 1002 + 2001 \times 22201 = 10242444 + 44424201 := 54666645$
 $10001 \times 1034 + 4301 \times 10001 = 10341034 + 43014301 := 53355335$ $11022 \times 1002 + 2001 \times 22011 = 11044044 + 44044011 := 55088055$
 $10001 \times 1124 + 4211 \times 10001 = 11241124 + 42114211 := 53355335$ $10022 \times 1102 + 2011 \times 22001 = 11044244 + 44244011 := 55288255$
 $10001 \times 1214 + 4121 \times 10001 = 12141214 + 41214121 := 53355335$ $11002 \times 1022 + 2201 \times 20011 = 11244044 + 44044211 := 55288255$
 $10001 \times 1304 + 4031 \times 10001 = 13041304 + 40314031 := 53355335$ $11012 \times 1012 + 2101 \times 21011 = 11144144 + 44144111 := 55288255$
 $11112 \times 1002 + 2001 \times 21111 = 11134224 + 42243111 := 53377335$ $11122 \times 1002 + 2001 \times 22111 = 11144244 + 44244111 := 55388355$
 $20013 \times 1101 + 1011 \times 31002 = 22034313 + 31343022 := 53377335$ $21013 \times 1011 + 1101 \times 31012 = 21244143 + 34144212 := 55388355$
 $20103 \times 1011 + 1101 \times 30102 = 20324133 + 33142302 := 53466435$ $10002 \times 1122 + 2211 \times 20001 = 11222244 + 44222211 := 55444455$
 $21003 \times 1101 + 1011 \times 30012 = 23124303 + 30342132 := 53466435$ $10012 \times 1112 + 2111 \times 21001 = 11133344 + 44333111 := 55466455$
 $10234 \times 1001 + 1001 \times 43201 = 10244234 + 43244201 := 53488435$ $10001 \times 1144 + 4411 \times 10001 = 11441144 + 44114411 := 55555555$
 $21223 \times 1001 + 1001 \times 32212 = 21244223 + 32244212 := 53488435$ $10001 \times 1234 + 4321 \times 10001 = 12341234 + 43214321 := 55555555$
 $10112 \times 1102 + 2011 \times 21101 = 11143424 + 42434111 := 53577535$ $10001 \times 1324 + 4231 \times 10001 = 13241324 + 42314231 := 55555555$
 $20113 \times 1101 + 1011 \times 31102 = 22144413 + 31444122 := 53588535$ $10001 \times 1414 + 4141 \times 10001 = 14141414 + 41414141 := 55555555$
 $10102 \times 1112 + 2111 \times 20101 = 11233424 + 42433211 := 53666635$ $10001 \times 2143 + 3412 \times 10001 = 21432143 + 34123412 := 55555555$
 $11002 \times 1202 + 2021 \times 20011 = 13224404 + 40442231 := 53666635$ $10001 \times 2413 + 3142 \times 10001 = 24132413 + 31423142 := 55555555$
 $11212 \times 1002 + 2001 \times 21211 = 11234424 + 42443211 := 53677635$ $10004 \times 1111 + 1111 \times 40001 = 11114444 + 44441111 := 55555555$
 $21103 \times 1101 + 1011 \times 30112 = 23234403 + 30443232 := 53677635$ $11222 \times 1002 + 2001 \times 22211 = 11244444 + 44444211 := 55688655$
 $10334 \times 1001 + 1001 \times 43301 = 10344334 + 43344301 := 53688635$ $10102 \times 1122 + 2211 \times 20101 = 11334444 + 44443311 := 55777755$
 $32312 \times 1001 + 1001 \times 21323 = 32344312 + 21344323 := 53688635$ $11002 \times 1212 + 2121 \times 20011 = 13334424 + 42443331 := 55777755$
 $10101 \times 1034 + 4301 \times 10101 = 10444434 + 43444401 := 53888835$ $20103 \times 1111 + 1111 \times 30102 = 22334433 + 33443322 := 55777755$
 $10101 \times 2123 + 3212 \times 10101 = 21444423 + 32444412 := 53888835$ $11002 \times 1122 + 2211 \times 20011 = 12344244 + 44244321 := 56588565$
 $10434 \times 1001 + 1001 \times 43401 = 10444434 + 43444401 := 53888835$ $10002 \times 1222 + 2221 \times 20001 = 12222444 + 44422221 := 56644665$
 $21423 \times 1001 + 1001 \times 32412 = 21444423 + 32444412 := 53888835$ $10001 \times 1244 + 4421 \times 10001 = 12441244 + 44214421 := 56655665$
 $10022 \times 1002 + 2001 \times 22001 = 10042044 + 44024001 := 54066045$ $10001 \times 1334 + 4331 \times 10001 = 13341334 + 43314331 := 56655665$
 $10004 \times 1011 + 1101 \times 40001 = 10114044 + 44041101 := 54155145$ $10001 \times 1424 + 4241 \times 10001 = 14241424 + 42414241 := 56655665$
 $10002 \times 1022 + 2201 \times 20001 = 10222044 + 44022201 := 54244245$ $10001 \times 2243 + 3422 \times 10001 = 22432243 + 34223422 := 56655665$
 $10012 \times 1012 + 2101 \times 21001 = 10132144 + 44123101 := 54255245$ $10001 \times 2423 + 3242 \times 10001 = 24232423 + 32423242 := 56655665$
 $21003 \times 1011 + 1101 \times 30012 = 21234033 + 33043212 := 54277245$ $20013 \times 1111 + 1111 \times 31002 = 22234443 + 34443222 := 56677665$
 $10122 \times 1002 + 2001 \times 22101 = 10142244 + 44224101 := 54366345$ $21003 \times 1111 + 1111 \times 30012 = 23334333 + 33343332 := 56677665$
 $20013 \times 1011 + 1101 \times 31002 = 20233143 + 34133202 := 54366345$ $10001 \times 1344 + 4431 \times 10001 = 13441344 + 44314431 := 57755775$
 $10001 \times 1044 + 4401 \times 10001 = 10441044 + 44014401 := 54455445$ $10001 \times 1434 + 4341 \times 10001 = 14341434 + 43414341 := 57755775$
 $10001 \times 1134 + 4311 \times 10001 = 11341134 + 43114311 := 54455445$ $10001 \times 2343 + 3432 \times 10001 = 23432343 + 34323432 := 57755775$
 $10001 \times 1224 + 4221 \times 10001 = 12241224 + 42214221 := 54455445$ $10001 \times 2433 + 3342 \times 10001 = 24332433 + 33423342 := 57755775$
 $10001 \times 1314 + 4131 \times 10001 = 13141314 + 41314131 := 54455445$ $11002 \times 1222 + 2221 \times 20011 = 13444444 + 44444431 := 57888875$
 $10001 \times 1404 + 4041 \times 10001 = 14041404 + 40414041 := 54455445$ $10001 \times 1444 + 4441 \times 10001 = 14441444 + 44414441 := 58855885$
 $10001 \times 2043 + 3402 \times 10001 = 20432043 + 34023402 := 54455445$ $10001 \times 2443 + 3442 \times 10001 = 24432443 + 34423442 := 58855885$
 $10001 \times 2403 + 3042 \times 10001 = 24032403 + 30423042 := 54455445$ $10001 \times 2004 + 4002 \times 10001 = 20042004 + 40024002 := 60066006$
 $10012 \times 1202 + 2021 \times 21001 = 12034424 + 42443021 := 54477445$ $10002 \times 2002 + 2002 \times 20001 = 20024004 + 40042002 := 60066006$
 $11002 \times 1112 + 2111 \times 20011 = 12234224 + 42243221 := 54477445$ $20002 \times 1002 + 2001 \times 20002 = 20042004 + 40024002 := 60066006$
 $10002 \times 1212 + 2121 \times 20001 = 12122424 + 42422121 := 54544545$ $20004 \times 1001 + 1001 \times 40002 = 20024004 + 40042002 := 60066006$
 $10102 \times 1022 + 2201 \times 20101 = 10324244 + 44242301 := 54566545$ $20104 \times 1001 + 1001 \times 40102 = 20124104 + 40142102 := 60266206$

$$\begin{aligned}
20102 \times 1002 + 2001 \times 20102 &= 20142204 + 40224102 := \mathbf{60366306} & 31213 \times 1001 + 1001 \times 31213 &= 31244213 + 31244213 := \mathbf{62488426} \\
10102 \times 2002 + 2002 \times 20101 &= 20224204 + 40242202 := \mathbf{60466406} & 20102 \times 1012 + 2101 \times 20102 &= 20343224 + 42234302 := \mathbf{62577526} \\
20204 \times 1001 + 1001 \times 40202 &= 20224204 + 40242202 := \mathbf{60466406} & 20324 \times 1001 + 1001 \times 42302 &= 20344324 + 42344302 := \mathbf{62688626} \\
10101 \times 2004 + 4002 \times 10101 &= 20242404 + 40424202 := \mathbf{60666606} & 31313 \times 1001 + 1001 \times 31313 &= 31344313 + 31344313 := \mathbf{62688626} \\
20202 \times 1002 + 2001 \times 20202 &= 20242404 + 40424202 := \mathbf{60666606} & 10101 \times 2024 + 4202 \times 10101 &= 20444424 + 42444402 := \mathbf{62888826} \\
20304 \times 1001 + 1001 \times 40302 &= 20324304 + 40342302 := \mathbf{60666606} & 10101 \times 3113 + 3113 \times 10101 &= 31444413 + 31444413 := \mathbf{62888826} \\
10202 \times 2002 + 2002 \times 20201 &= 20424404 + 40442402 := \mathbf{60866806} & 10212 \times 2002 + 2002 \times 21201 &= 20444424 + 42444402 := \mathbf{62888826} \\
20404 \times 1001 + 1001 \times 40402 &= 20424404 + 40442402 := \mathbf{60866806} & 20202 \times 1012 + 2101 \times 20202 &= 20444424 + 42444402 := \mathbf{62888826} \\
30403 \times 1001 + 1001 \times 30403 &= 30433403 + 30433403 := \mathbf{60866806} & 20424 \times 1001 + 1001 \times 42402 &= 20444424 + 42444402 := \mathbf{62888826} \\
20014 \times 1001 + 1001 \times 41002 &= 20034014 + 41043002 := \mathbf{61077016} & 31413 \times 1001 + 1001 \times 31413 &= 31444413 + 31444413 := \mathbf{62888826} \\
30013 \times 1001 + 1001 \times 31003 &= 30043013 + 31034003 := \mathbf{61077016} & 10001 \times 2034 + 4302 \times 10001 &= 20342034 + 43024302 := \mathbf{63366336} \\
20012 \times 2001 + 1002 \times 21002 &= 40044012 + 21044004 := \mathbf{61088016} & 10001 \times 2124 + 4212 \times 10001 &= 21242124 + 42124212 := \mathbf{63366336} \\
10001 \times 2014 + 4102 \times 10001 &= 20142014 + 41024102 := \mathbf{61166116} & 10001 \times 2214 + 4122 \times 10001 &= 22142214 + 41224122 := \mathbf{63366336} \\
10001 \times 2104 + 4012 \times 10001 &= 21042104 + 40124012 := \mathbf{61166116} & 10001 \times 2304 + 4032 \times 10001 &= 23042304 + 40324032 := \mathbf{63366336} \\
10002 \times 2102 + 2012 \times 20001 &= 21024204 + 40242012 := \mathbf{61266216} & 10002 \times 2112 + 2112 \times 20001 &= 21124224 + 42242112 := \mathbf{63366336} \\
20114 \times 1001 + 1001 \times 41102 &= 20134114 + 41143102 := \mathbf{61277216} & 20012 \times 2011 + 1102 \times 21002 &= 40244132 + 23144204 := \mathbf{63388336} \\
30113 \times 1001 + 1001 \times 31103 &= 30143113 + 31134103 := \mathbf{61277216} & 30103 \times 1011 + 1101 \times 30103 &= 30434133 + 33143403 := \mathbf{63577536} \\
20112 \times 2001 + 1002 \times 21102 &= 40244112 + 21144204 := \mathbf{61388316} & 10002 \times 2022 + 2202 \times 20001 &= 20224044 + 44042202 := \mathbf{64266246} \\
20214 \times 1001 + 1001 \times 41202 &= 20234214 + 41243202 := \mathbf{61477416} & 20004 \times 1011 + 1101 \times 40002 &= 20224044 + 44042202 := \mathbf{64266246} \\
30213 \times 1001 + 1001 \times 31203 &= 30243213 + 31234203 := \mathbf{61477416} & 10012 \times 2012 + 2102 \times 21001 &= 20144144 + 44144102 := \mathbf{64288246} \\
10102 \times 2102 + 2012 \times 20101 &= 21234404 + 40443212 := \mathbf{61677616} & 30013 \times 1101 + 1011 \times 31003 &= 33044313 + 31344033 := \mathbf{64388346} \\
20314 \times 1001 + 1001 \times 41302 &= 20334314 + 41343302 := \mathbf{61677616} & 10001 \times 2044 + 4402 \times 10001 &= 20442044 + 44024402 := \mathbf{64466446} \\
30313 \times 1001 + 1001 \times 31303 &= 30343313 + 31334303 := \mathbf{61677616} & 10001 \times 2134 + 4312 \times 10001 &= 21342134 + 43124312 := \mathbf{64466446} \\
20212 \times 2001 + 1002 \times 21202 &= 40444212 + 21244404 := \mathbf{61688616} & 10001 \times 2224 + 4222 \times 10001 &= 22242224 + 42224222 := \mathbf{64466446} \\
10101 \times 2014 + 4102 \times 10101 &= 20343414 + 41434302 := \mathbf{61777716} & 10001 \times 2314 + 4132 \times 10001 &= 23142314 + 41324132 := \mathbf{64466446} \\
10101 \times 3013 + 3103 \times 10101 &= 30434313 + 31343403 := \mathbf{61777716} & 10001 \times 2404 + 4042 \times 10001 &= 24042404 + 40424042 := \mathbf{64466446} \\
20414 \times 1001 + 1001 \times 41402 &= 20434414 + 41443402 := \mathbf{61877816} & 10001 \times 3043 + 3403 \times 10001 &= 30433043 + 34033403 := \mathbf{64466446} \\
30413 \times 1001 + 1001 \times 31403 &= 30443413 + 31434403 := \mathbf{61877816} & 20002 \times 1202 + 2021 \times 20002 &= 24042404 + 40424042 := \mathbf{64466446} \\
10012 \times 2002 + 2002 \times 21001 &= 20044024 + 42044002 := \mathbf{62088026} & 20002 \times 1112 + 2111 \times 20002 &= 22242224 + 42224222 := \mathbf{64466446} \\
20024 \times 1001 + 1001 \times 42002 &= 20044024 + 42044002 := \mathbf{62088026} & 20002 \times 2201 + 1022 \times 20002 &= 44024402 + 20442044 := \mathbf{64466446} \\
31013 \times 1001 + 1001 \times 31013 &= 31044013 + 31044013 := \mathbf{62088026} & 30013 \times 1011 + 1101 \times 31003 &= 30343143 + 34134303 := \mathbf{64477446} \\
10002 \times 2012 + 2102 \times 20001 &= 20124024 + 42042102 := \mathbf{62166126} & 10002 \times 2212 + 2122 \times 20001 &= 22124424 + 42442122 := \mathbf{64566546} \\
10001 \times 2024 + 4202 \times 10001 &= 20242024 + 42024202 := \mathbf{62266226} & 30113 \times 1011 + 1101 \times 31103 &= 30444243 + 34244403 := \mathbf{64688646} \\
10001 \times 2114 + 4112 \times 10001 &= 21142114 + 41124112 := \mathbf{62266226} & 10002 \times 2122 + 2212 \times 20001 &= 21224244 + 44242212 := \mathbf{65466456} \\
10001 \times 2204 + 4022 \times 10001 &= 22042204 + 40224022 := \mathbf{62266226} & 10001 \times 2144 + 4412 \times 10001 &= 21442144 + 44124412 := \mathbf{65566556} \\
20002 \times 1012 + 2101 \times 20002 &= 20242024 + 42024202 := \mathbf{62266226} & 10001 \times 2234 + 4322 \times 10001 &= 22342234 + 43224322 := \mathbf{65566556} \\
20002 \times 1102 + 2011 \times 20002 &= 22042204 + 40224022 := \mathbf{62266226} & 10001 \times 2324 + 4232 \times 10001 &= 23242324 + 42324232 := \mathbf{65566556} \\
20124 \times 1001 + 1001 \times 42102 &= 20144124 + 42144102 := \mathbf{62288226} & 10001 \times 2414 + 4142 \times 10001 &= 24142414 + 41424142 := \mathbf{65566556} \\
31113 \times 1001 + 1001 \times 31113 &= 31144113 + 31144113 := \mathbf{62288226} & 10001 \times 3143 + 3413 \times 10001 &= 31433143 + 34133413 := \mathbf{65566556} \\
10002 \times 2202 + 2022 \times 20001 &= 22024404 + 40442022 := \mathbf{62466426} & 10001 \times 2244 + 4422 \times 10001 &= 22442244 + 44224422 := \mathbf{66666666} \\
20004 \times 1101 + 1011 \times 40002 &= 22024404 + 40442022 := \mathbf{62466426} & 10001 \times 2334 + 4332 \times 10001 &= 23342334 + 43324332 := \mathbf{66666666} \\
10112 \times 2002 + 2002 \times 21101 &= 20244224 + 42244202 := \mathbf{62488426} & 10001 \times 2424 + 4242 \times 10001 &= 24242424 + 42424242 := \mathbf{66666666} \\
20224 \times 1001 + 1001 \times 42202 &= 20244224 + 42244202 := \mathbf{62488426} & 10001 \times 3243 + 3423 \times 10001 &= 32433243 + 34233423 := \mathbf{66666666}
\end{aligned}$$

$$\begin{aligned}
10002 \times 2222 + 2222 \times 20001 &= 22224444 + 44442222 := \mathbf{66666666} & 10001 \times 3234 + 4323 \times 10001 &= 32343234 + 43234323 := \mathbf{75577557} \\
20001 \times 2222 + 2222 \times 10002 &= 44442222 + 22224444 := \mathbf{66666666} & 10001 \times 3324 + 4233 \times 10001 &= 33243324 + 42334233 := \mathbf{75577557} \\
20002 \times 1122 + 2211 \times 20002 &= 22442244 + 44224422 := \mathbf{66666666} & 10001 \times 3414 + 4143 \times 10001 &= 34143414 + 41434143 := \mathbf{75577557} \\
20002 \times 1212 + 2121 \times 20002 &= 24242424 + 42424242 := \mathbf{66666666} & 10001 \times 3244 + 4423 \times 10001 &= 32443244 + 44234423 := \mathbf{76677667} \\
20004 \times 1111 + 1111 \times 40002 &= 22224444 + 44442222 := \mathbf{66666666} & 10001 \times 3334 + 4333 \times 10001 &= 33343334 + 43334333 := \mathbf{76677667} \\
30103 \times 1111 + 1111 \times 30103 &= 33444433 + 33444433 := \mathbf{66888866} & 10001 \times 3424 + 4243 \times 10001 &= 34243424 + 42434243 := \mathbf{76677667} \\
10001 \times 2344 + 4432 \times 10001 &= 23442344 + 44324432 := \mathbf{67766776} & 10001 \times 3344 + 4433 \times 10001 &= 33443344 + 44334433 := \mathbf{77777777} \\
10001 \times 2434 + 4342 \times 10001 &= 24342434 + 43424342 := \mathbf{67766776} & 10001 \times 3434 + 4343 \times 10001 &= 34343434 + 43434343 := \mathbf{77777777} \\
10001 \times 3343 + 3433 \times 10001 &= 33433343 + 34333433 := \mathbf{67766776} & 30004 \times 1111 + 1111 \times 40003 &= 33334444 + 44443333 := \mathbf{77777777} \\
30013 \times 1111 + 1111 \times 31003 &= 33344443 + 34444333 := \mathbf{67788776} & 10001 \times 3444 + 4443 \times 10001 &= 34443444 + 44434443 := \mathbf{78877887} \\
10001 \times 2444 + 4442 \times 10001 &= 24442444 + 44424442 := \mathbf{68866886} & 10001 \times 4004 + 4004 \times 10001 &= 40044004 + 40044004 := \mathbf{80088008} \\
10001 \times 3443 + 3443 \times 10001 &= 34433443 + 34433443 := \mathbf{68866886} & 20002 \times 2002 + 2002 \times 20002 &= 40044004 + 40044004 := \mathbf{80088008} \\
20002 \times 1222 + 2221 \times 20002 &= 24442444 + 44424442 := \mathbf{68866886} & 40004 \times 1001 + 1001 \times 40004 &= 40044004 + 40044004 := \mathbf{80088008} \\
10001 \times 3004 + 4003 \times 10001 &= 30043004 + 40034003 := \mathbf{70077007} & 40104 \times 1001 + 1001 \times 40104 &= 40144104 + 40144104 := \mathbf{80288208} \\
30004 \times 1001 + 1001 \times 40003 &= 30034004 + 40043003 := \mathbf{70077007} & 20102 \times 2002 + 2002 \times 20102 &= 40244204 + 40244204 := \mathbf{80488408} \\
30104 \times 1001 + 1001 \times 40103 &= 30134104 + 40143103 := \mathbf{70277207} & 40204 \times 1001 + 1001 \times 40204 &= 40244204 + 40244204 := \mathbf{80488408} \\
30204 \times 1001 + 1001 \times 40203 &= 30234204 + 40243203 := \mathbf{70477407} & 40304 \times 1001 + 1001 \times 40304 &= 40344304 + 40344304 := \mathbf{80688608} \\
30304 \times 1001 + 1001 \times 40303 &= 30334304 + 40343303 := \mathbf{70677607} & 10101 \times 4004 + 4004 \times 10101 &= 40444404 + 40444404 := \mathbf{80888808} \\
10101 \times 3004 + 4003 \times 10101 &= 30343404 + 40434303 := \mathbf{70777707} & 20202 \times 2002 + 2002 \times 20202 &= 40444404 + 40444404 := \mathbf{80888808} \\
30404 \times 1001 + 1001 \times 40403 &= 30434404 + 40443403 := \mathbf{70877807} & 40404 \times 1001 + 1001 \times 40404 &= 40444404 + 40444404 := \mathbf{80888808} \\
30014 \times 1001 + 1001 \times 41003 &= 30044014 + 41044003 := \mathbf{71088017} & 10001 \times 4014 + 4104 \times 10001 &= 40144014 + 41044104 := \mathbf{81188118} \\
10001 \times 3014 + 4103 \times 10001 &= 30143014 + 41034103 := \mathbf{71177117} & 10001 \times 4024 + 4204 \times 10001 &= 40244024 + 42044204 := \mathbf{82288228} \\
10001 \times 3104 + 4013 \times 10001 &= 31043104 + 40134013 := \mathbf{71177117} & 10001 \times 4114 + 4114 \times 10001 &= 41144114 + 41144114 := \mathbf{82288228} \\
30114 \times 1001 + 1001 \times 41103 &= 30144114 + 41144103 := \mathbf{71288217} & 20002 \times 2012 + 2102 \times 20002 &= 40244024 + 42044204 := \mathbf{82288228} \\
30214 \times 1001 + 1001 \times 41203 &= 30244214 + 41244203 := \mathbf{71488417} & 10001 \times 4034 + 4304 \times 10001 &= 40344034 + 43044304 := \mathbf{83388338} \\
30314 \times 1001 + 1001 \times 41303 &= 30344314 + 41344303 := \mathbf{71688617} & 10001 \times 4124 + 4214 \times 10001 &= 41244124 + 42144214 := \mathbf{83388338} \\
10101 \times 3014 + 4103 \times 10101 &= 30444414 + 41444403 := \mathbf{71888817} & 10001 \times 4044 + 4404 \times 10001 &= 40444044 + 44044404 := \mathbf{84488448} \\
30414 \times 1001 + 1001 \times 41403 &= 30444414 + 41444403 := \mathbf{71888817} & 10001 \times 4134 + 4314 \times 10001 &= 41344134 + 43144314 := \mathbf{84488448} \\
10001 \times 3024 + 4203 \times 10001 &= 30243024 + 42034203 := \mathbf{72277227} & 10001 \times 4224 + 4224 \times 10001 &= 42244224 + 42244224 := \mathbf{84488448} \\
10001 \times 3114 + 4113 \times 10001 &= 31143114 + 41134113 := \mathbf{72277227} & 20002 \times 2022 + 2202 \times 20002 &= 40444044 + 44044404 := \mathbf{84488448} \\
10001 \times 3204 + 4023 \times 10001 &= 32043204 + 40234023 := \mathbf{72277227} & 20002 \times 2112 + 2112 \times 20002 &= 42244224 + 42244224 := \mathbf{84488448} \\
10001 \times 3034 + 4303 \times 10001 &= 30343034 + 43034303 := \mathbf{73377337} & 40004 \times 1011 + 1101 \times 40004 &= 40444044 + 44044404 := \mathbf{84488448} \\
10001 \times 3124 + 4213 \times 10001 &= 31243124 + 42134213 := \mathbf{73377337} & 10001 \times 4144 + 4414 \times 10001 &= 41444144 + 44144414 := \mathbf{85588558} \\
10001 \times 3214 + 4123 \times 10001 &= 32143214 + 41234123 := \mathbf{73377337} & 10001 \times 4234 + 4324 \times 10001 &= 42344234 + 43244324 := \mathbf{85588558} \\
10001 \times 3304 + 4033 \times 10001 &= 33043304 + 40334033 := \mathbf{73377337} & 10001 \times 4244 + 4424 \times 10001 &= 42444244 + 44244424 := \mathbf{86688668} \\
30004 \times 1101 + 1011 \times 40003 &= 33034404 + 40443033 := \mathbf{73477437} & 10001 \times 4334 + 4334 \times 10001 &= 43344334 + 43344334 := \mathbf{86688668} \\
40003 \times 1011 + 1101 \times 30004 &= 40443033 + 33034404 := \mathbf{73477437} & 20002 \times 2122 + 2212 \times 20002 &= 42444244 + 44244424 := \mathbf{86688668} \\
10001 \times 3044 + 4403 \times 10001 &= 30443044 + 44034403 := \mathbf{74477447} & 10001 \times 4344 + 4434 \times 10001 &= 43444344 + 44344434 := \mathbf{87788778} \\
10001 \times 3134 + 4313 \times 10001 &= 31343134 + 43134313 := \mathbf{74477447} & 10001 \times 4444 + 4444 \times 10001 &= 44444444 + 44444444 := \mathbf{88888888} \\
10001 \times 3224 + 4223 \times 10001 &= 32243224 + 42234223 := \mathbf{74477447} & 20002 \times 2222 + 2222 \times 20002 &= 44444444 + 44444444 := \mathbf{88888888} \\
10001 \times 3314 + 4133 \times 10001 &= 33143314 + 41334133 := \mathbf{74477447} & 40004 \times 1111 + 1111 \times 40004 &= 44444444 + 44444444 := \mathbf{88888888} \\
10001 \times 3404 + 4043 \times 10001 &= 34043404 + 40434043 := \mathbf{74477447} & & \\
10001 \times 3144 + 4413 \times 10001 &= 31443144 + 44134413 := \mathbf{75577557} & 10201 \times 10101 + 10101 \times 10201 &= 103040301 + 103040301 := \mathbf{206080602}
\end{aligned}$$

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 $13113 \times 10001 + 10001 \times 31131 = 131143113 + 311341131 := 442484244$
 $14103 \times 10001 + 10001 \times 30141 = 141044103 + 301440141 := 442484244$
 $20022 \times 10011 + 11001 \times 22002 = 200440242 + 242044002 := 442484244$
 $20142 \times 10001 + 10001 \times 24102 = 201440142 + 241044102 := 442484244$
 $21132 \times 10001 + 10001 \times 23112 = 211341132 + 231143112 := 442484244$
 $22002 \times 11001 + 10011 \times 20022 = 242044002 + 200440242 := 442484244$
 $11011 \times 10103 + 30101 \times 11011 = 111244133 + 331442111 := 442686244$
 $20102 \times 10021 + 12001 \times 20102 = 201442142 + 241244102 := 442686244$
 $20102 \times 11011 + 11011 \times 20102 = 221343122 + 221343122 := 442686244$
 $10113 \times 10011 + 11001 \times 31101 = 101241243 + 342142101 := 443383344$
 $10243 \times 10001 + 10001 \times 34201 = 102440243 + 342044201 := 444484444$
 $11111 \times 10003 + 30001 \times 11111 = 111143333 + 333341111 := 444484444$
 $11233 \times 10001 + 10001 \times 33211 = 112341233 + 332143211 := 444484444$
 $12223 \times 10001 + 10001 \times 32221 = 122242223 + 322242221 := 444484444$
 $13213 \times 10001 + 10001 \times 31231 = 132143213 + 312341231 := 444484444$
 $14203 \times 10001 + 10001 \times 30241 = 142044203 + 302440241 := 444484444$
 $20002 \times 10121 + 12101 \times 20002 = 202440242 + 242044202 := 444484444$
 $20002 \times 11111 + 11111 \times 20002 = 222242222 + 222242222 := 444484444$
 $20242 \times 10001 + 10001 \times 24202 = 202440242 + 242044202 := 444484444$
 $21232 \times 10001 + 10001 \times 23212 = 212341232 + 232143212 := 444484444$
 $22222 \times 10001 + 10001 \times 22222 = 222242222 + 222242222 := 444484444$
 $20122 \times 10011 + 11001 \times 22102 = 201441342 + 243144102 := 444585444$
 $10101 \times 10043 + 34001 \times 10101 = 101444343 + 343444101 := 444888444$
 $11033 \times 10101 + 10101 \times 33011 = 111444333 + 333444111 := 444888444$
 $12023 \times 10101 + 10101 \times 32021 = 121444323 + 323444121 := 444888444$
 $13013 \times 10101 + 10101 \times 31031 = 131444313 + 313444131 := 444888444$
 $14003 \times 10101 + 10101 \times 30041 = 141444303 + 303444141 := 444888444$
 $20042 \times 10101 + 10101 \times 24002 = 202444242 + 242444202 := 444888444$
 $20202 \times 10021 + 12001 \times 20202 = 202444242 + 242444202 := 444888444$
 $20202 \times 11011 + 11011 \times 20202 = 222444222 + 222444222 := 444888444$
 $21032 \times 10101 + 10101 \times 23012 = 212444232 + 232444212 := 444888444$
 $22022 \times 10101 + 10101 \times 22022 = 222444222 + 222444222 := 444888444$
 $10111 \times 10013 + 31001 \times 11101 = 101241443 + 344142101 := 445383544$
 $10213 \times 10011 + 11001 \times 31201 = 102242343 + 343242201 := 445484544$
 $10343 \times 10001 + 10001 \times 34301 = 103440343 + 343044301 := 446484644$
 $11333 \times 10001 + 10001 \times 33311 = 113341333 + 333143311 := 446484644$
 $12323 \times 10001 + 10001 \times 32321 = 123242323 + 323242321 := 446484644$
 $13313 \times 10001 + 10001 \times 31331 = 133143313 + 313341331 := 446484644$
 $14303 \times 10001 + 10001 \times 30341 = 143044303 + 303440341 := 446484644$
 $20342 \times 10001 + 10001 \times 24302 = 203440342 + 243044302 := 446484644$
 $21332 \times 10001 + 10001 \times 23312 = 213341332 + 233143312 := 446484644$
 $22322 \times 10001 + 10001 \times 22322 = 223242322 + 223242322 := 446484644$
 $20022 \times 10111 + 11101 \times 22002 = 202442442 + 244244202 := 446686644$
 $20222 \times 10011 + 11001 \times 22202 = 202442442 + 244244202 := 446686644$
 $10313 \times 10011 + 11001 \times 31301 = 103243443 + 344342301 := 447585744$
 $10443 \times 10001 + 10001 \times 34401 = 104440443 + 344044401 := 448484844$
 $11433 \times 10001 + 10001 \times 33411 = 114341433 + 334143411 := 448484844$
 $12423 \times 10001 + 10001 \times 32421 = 124242423 + 324242421 := 448484844$
 $13413 \times 10001 + 10001 \times 31431 = 134143413 + 314341431 := 448484844$
 $14403 \times 10001 + 10001 \times 30441 = 144044403 + 304440441 := 448484844$
 $20002 \times 10221 + 12201 \times 20002 = 204440442 + 244044402 := 448484844$
 $20002 \times 11211 + 11211 \times 20002 = 224242422 + 224242422 := 448484844$
 $20442 \times 10001 + 10001 \times 24402 = 204440442 + 244044402 := 448484844$
 $22422 \times 10001 + 10001 \times 22422 = 224242422 + 224242422 := 448484844$
 $23412 \times 10001 + 10001 \times 21432 = 234143412 + 214341432 := 448484844$
 $11043 \times 10001 + 10001 \times 34011 = 110441043 + 340144011 := 450585054$
 $12033 \times 10001 + 10001 \times 33021 = 120342033 + 330243021 := 450585054$
 $13023 \times 10001 + 10001 \times 32031 = 130243023 + 320342031 := 450585054$
 $14013 \times 10001 + 10001 \times 31041 = 140144013 + 310441041 := 450585054$
 $21042 \times 10001 + 10001 \times 24012 = 210441042 + 240144012 := 450585054$
 $22032 \times 10001 + 10001 \times 23022 = 220342032 + 230243022 := 450585054$
 $11143 \times 10001 + 10001 \times 34111 = 111441143 + 341144111 := 452585254$
 $12133 \times 10001 + 10001 \times 33121 = 121342133 + 331243121 := 452585254$
 $13123 \times 10001 + 10001 \times 32131 = 131243123 + 321342131 := 452585254$
 $14113 \times 10001 + 10001 \times 31141 = 141144113 + 311441141 := 452585254$
 $21142 \times 10001 + 10001 \times 24112 = 211441142 + 241144112 := 452585254$
 $22132 \times 10001 + 10001 \times 23122 = 221342132 + 231243122 := 452585254$
 $11243 \times 10001 + 10001 \times 34211 = 112441243 + 342144211 := 454585454$
 $12233 \times 10001 + 10001 \times 33221 = 122342233 + 332243221 := 454585454$

$13223 \times 10001 + 10001 \times 32231 = 132243223 + 322342231 := 454585454$
 $14213 \times 10001 + 10001 \times 31241 = 142144213 + 312441241 := 454585454$
 $21242 \times 10001 + 10001 \times 24212 = 212441242 + 242144212 := 454585454$
 $22232 \times 10001 + 10001 \times 23222 = 222342232 + 232243222 := 454585454$
 $11343 \times 10001 + 10001 \times 34311 = 113441343 + 343144311 := 456585654$
 $12333 \times 10001 + 10001 \times 33321 = 123342333 + 333243321 := 456585654$
 $13323 \times 10001 + 10001 \times 32331 = 133243323 + 323342331 := 456585654$
 $14313 \times 10001 + 10001 \times 31341 = 143144313 + 313441341 := 456585654$
 $21342 \times 10001 + 10001 \times 24312 = 213441342 + 243144312 := 456585654$
 $22332 \times 10001 + 10001 \times 23322 = 223342332 + 233243322 := 456585654$
 $11443 \times 10001 + 10001 \times 34411 = 114441443 + 344144411 := 458585854$
 $12433 \times 10001 + 10001 \times 33421 = 124342433 + 334243421 := 458585854$
 $13423 \times 10001 + 10001 \times 32431 = 134243423 + 324342431 := 458585854$
 $14413 \times 10001 + 10001 \times 31441 = 144144413 + 314441441 := 458585854$
 $22432 \times 10001 + 10001 \times 23422 = 224342432 + 234243422 := 458585854$
 $24412 \times 10001 + 10001 \times 21442 = 244144412 + 214441442 := 458585854$
 $12043 \times 10001 + 10001 \times 34021 = 120442043 + 340244021 := 460686064$
 $13033 \times 10001 + 10001 \times 33031 = 130343033 + 330343031 := 460686064$
 $14023 \times 10001 + 10001 \times 32041 = 140244023 + 320442041 := 460686064$
 $20002 \times 11021 + 12011 \times 20002 = 220442042 + 240244022 := 460686064$
 $22042 \times 10001 + 10001 \times 24022 = 220442042 + 240244022 := 460686064$
 $23032 \times 10001 + 10001 \times 23032 = 230343032 + 230343032 := 460686064$
 $12143 \times 10001 + 10001 \times 34121 = 121442143 + 341244121 := 462686264$
 $13133 \times 10001 + 10001 \times 33131 = 131343133 + 331343131 := 462686264$
 $14123 \times 10001 + 10001 \times 32141 = 141244123 + 321442141 := 462686264$
 $22142 \times 10001 + 10001 \times 24122 = 221442142 + 241244122 := 462686264$
 $23132 \times 10001 + 10001 \times 23132 = 231343132 + 231343132 := 462686264$
 $12243 \times 10001 + 10001 \times 34221 = 122442243 + 342244221 := 464686464$
 $13233 \times 10001 + 10001 \times 33231 = 132343233 + 332343231 := 464686464$
 $14223 \times 10001 + 10001 \times 32241 = 142244223 + 322442241 := 464686464$
 $20002 \times 11121 + 12111 \times 20002 = 222442242 + 242244222 := 464686464$
 $22242 \times 10001 + 10001 \times 24222 = 222442242 + 242244222 := 464686464$
 $23232 \times 10001 + 10001 \times 23232 = 232343232 + 232343232 := 464686464$
 $12343 \times 10001 + 10001 \times 34321 = 123442343 + 343244321 := 466686664$
 $13333 \times 10001 + 10001 \times 33331 = 133343333 + 333343331 := 466686664$
 $14323 \times 10001 + 10001 \times 32341 = 143244323 + 323442341 := 466686664$
 $22342 \times 10001 + 10001 \times 24322 = 223442342 + 243244322 := 466686664$
 $23332 \times 10001 + 10001 \times 23332 = 233343332 + 233343332 := 466686664$
 $12443 \times 10001 + 10001 \times 34421 = 124442443 + 344244421 := 468686864$
 $13433 \times 10001 + 10001 \times 33431 = 134343433 + 334343431 := 468686864$
 $14423 \times 10001 + 10001 \times 32441 = 144244423 + 324442441 := 468686864$
 $20002 \times 11221 + 12211 \times 20002 = 224442442 + 244244422 := 468686864$
 $22442 \times 10001 + 10001 \times 24422 = 224442442 + 244244422 := 468686864$
 $13043 \times 10001 + 10001 \times 34031 = 130443043 + 340344031 := 470787074$
 $14033 \times 10001 + 10001 \times 33041 = 140344033 + 330443041 := 470787074$
 $23042 \times 10001 + 10001 \times 24032 = 230443042 + 240344032 := 470787074$
 $13143 \times 10001 + 10001 \times 34131 = 131443143 + 341344131 := 472787274$
 $14133 \times 10001 + 10001 \times 33141 = 141344133 + 331443141 := 472787274$
 $23142 \times 10001 + 10001 \times 24132 = 231443142 + 241344132 := 472787274$
 $13243 \times 10001 + 10001 \times 34231 = 132443243 + 342344231 := 474787474$
 $14233 \times 10001 + 10001 \times 33241 = 142344233 + 332443241 := 474787474$
 $23242 \times 10001 + 10001 \times 24232 = 232443242 + 242344232 := 474787474$
 $13343 \times 10001 + 10001 \times 34331 = 133443343 + 343344331 := 476787674$
 $14333 \times 10001 + 10001 \times 33341 = 143344333 + 333443341 := 476787674$
 $23342 \times 10001 + 10001 \times 24332 = 233443342 + 243344332 := 476787674$
 $13443 \times 10001 + 10001 \times 34431 = 134443443 + 344344431 := 478787874$
 $14433 \times 10001 + 10001 \times 33441 = 144344433 + 334443441 := 478787874$
 $23442 \times 10001 + 10001 \times 24432 = 234443442 + 244344432 := 478787874$
 $14043 \times 10001 + 10001 \times 34041 = 140444043 + 340444041 := 480888084$
 $20002 \times 12021 + 12021 \times 20002 = 240444042 + 240444042 := 480888084$
 $24042 \times 10001 + 10001 \times 24042 = 240444042 + 240444042 := 480888084$
 $14143 \times 10001 + 10001 \times 34141 = 141444143 + 341444141 := 482888284$
 $24142 \times 10001 + 10001 \times 24142 = 241444142 + 241444142 := 482888284$
 $14243 \times 10001 + 10001 \times 34241 = 142444243 + 342444241 := 484888484$
 $20002 \times 12121 + 12121 \times 20002 = 242444242 + 242444242 := 484888484$
 $24242 \times 10001 + 10001 \times 24242 = 242444242 + 242444242 := 484888484$
 $14343 \times 10001 + 10001 \times 34341 = 143444343 + 343444341 := 486888684$
 $24342 \times 10001 + 10001 \times 24342 = 243444342 + 243444342 := 486888684$
 $14443 \times 10001 + 10001 \times 34441 = 144444443 + 344444441 := 488888884$
 $20002 \times 12221 + 12221 \times 20002 = 244444442 + 244444442 := 488888884$
 $24442 \times 10001 + 10001 \times 24442 = 244444442 + 244444442 := 488888884$
 $10002 \times 10002 + 20001 \times 20001 = 100040004 + 400040001 := 500080005$
 $10102 \times 10002 + 20001 \times 20101 = 101040204 + 402040101 := 503080305$
 $10202 \times 10002 + 20001 \times 20201 = 102040404 + 404040201 := 506080605$
 $11002 \times 10002 + 20001 \times 20011 = 110042004 + 400240011 := 510282015$
 $11102 \times 10002 + 20001 \times 20111 = 111042204 + 402240111 := 513282315$
 $11002 \times 10102 + 20101 \times 20011 = 111142204 + 402241111 := 513383315$
 $11202 \times 10002 + 20001 \times 20211 = 112042404 + 404240211 := 516282615$
 $11002 \times 10202 + 20201 \times 20011 = 112242404 + 404242211 := 516484615$
 $10012 \times 10002 + 20001 \times 21001 = 100140024 + 420041001 := 520181025$
 $12002 \times 10002 + 20001 \times 20021 = 120044004 + 400440021 := 520484025$
 $11002 \times 11002 + 20011 \times 20011 = 121044004 + 400440121 := 521484125$
 $10112 \times 10002 + 20001 \times 21101 = 101140224 + 422041101 := 523181325$
 $10102 \times 10012 + 21001 \times 20101 = 101141224 + 422141101 := 523282325$
 $12102 \times 10002 + 20001 \times 20121 = 121044204 + 402440121 := 523484325$
 $12002 \times 10102 + 20101 \times 20021 = 121244204 + 402442121 := 523686325$
 $11102 \times 11002 + 20011 \times 20111 = 122144204 + 402441221 := 524585425$
 $10212 \times 10002 + 20001 \times 21201 = 102140424 + 424041201 := 526181625$
 $10202 \times 10012 + 21001 \times 20201 = 102142424 + 424241201 := 526383625$
 $12202 \times 10002 + 20001 \times 20221 = 122044404 + 404440221 := 526484625$
 $12002 \times 10202 + 20201 \times 20021 = 122444404 + 404444221 := 526888625$
 $11202 \times 11002 + 20011 \times 20211 = 123244404 + 404442321 := 527686725$
 $11012 \times 10002 + 20001 \times 21011 = 110142024 + 420241011 := 530383035$
 $11112 \times 10002 + 20001 \times 21111 = 111142224 + 422241111 := 533383335$
 $11012 \times 10102 + 20101 \times 21011 = 111243224 + 422342111 := 533585335$
 $11212 \times 10002 + 20001 \times 21211 = 112142424 + 424241211 := 536383635$

$$\begin{aligned}
11012 \times 10202 + 20201 \times 21011 &= 112344424 + 424443211 := \mathbf{536787635} \\
10022 \times 10002 + 20001 \times 22001 &= 100240044 + 440042001 := \mathbf{540282045} \\
12012 \times 10002 + 20001 \times 21021 &= 120144024 + 420441021 := \mathbf{540585045} \\
10012 \times 10012 + 21001 \times 21001 &= 100240144 + 441042001 := \mathbf{541282145} \\
10122 \times 10002 + 20001 \times 22101 &= 101240244 + 442042101 := \mathbf{543282345} \\
10102 \times 10022 + 22001 \times 20101 &= 101242244 + 442242101 := \mathbf{543484345} \\
12112 \times 10002 + 20001 \times 21121 &= 121144224 + 422441121 := \mathbf{543585345} \\
10112 \times 10012 + 21001 \times 21101 &= 101241344 + 443142101 := \mathbf{544383445} \\
10222 \times 10002 + 20001 \times 22201 &= 102240444 + 444042201 := \mathbf{546282645} \\
12212 \times 10002 + 20001 \times 21221 &= 122144424 + 424441221 := \mathbf{546585645}
\end{aligned}$$

$$\begin{aligned}
10202 \times 10022 + 22001 \times 20201 &= 102244444 + 444442201 := \mathbf{546686645} \\
11022 \times 10002 + 20001 \times 22011 &= 110242044 + 440242011 := \mathbf{550484055} \\
11122 \times 10002 + 20001 \times 22111 &= 111242244 + 442242111 := \mathbf{553484355} \\
11022 \times 10102 + 20101 \times 22011 &= 111344244 + 442443111 := \mathbf{553787355} \\
11222 \times 10002 + 20001 \times 22211 &= 112242444 + 444242211 := \mathbf{556484655} \\
12022 \times 10002 + 20001 \times 22021 &= 120244044 + 440442021 := \mathbf{560686065} \\
12122 \times 10002 + 20001 \times 22121 &= 121244244 + 442442121 := \mathbf{563686365} \\
12222 \times 10002 + 20001 \times 22221 &= 122244444 + 444442221 := \mathbf{566686665}
\end{aligned}$$

4.5 Digits 0, 1, 2, 3, 4 and 5

Below are examples of **palindromic-type expressions** with digits 0, 1, 2, 3, 4 and 5 on both sides of the expression. In this case the final sum is not necessarily a palindrome. Since there are lot of examples, we have written only few. First column give the numbers with final sum palindromic and second column give the result with non palindromic sum.

$$\begin{aligned}
1501 \times 1001 + 1001 \times 1051 &= 1502501 + 1052051 := \mathbf{2554552} \\
1511 \times 1001 + 1001 \times 1151 &= 1512511 + 1152151 := \mathbf{2664662} \\
1521 \times 1001 + 1001 \times 1251 &= 1522521 + 1252251 := \mathbf{2774772} \\
1531 \times 1001 + 1001 \times 1351 &= 1532531 + 1352351 := \mathbf{2884882} \\
1451 \times 1001 + 1001 \times 1541 &= 1452451 + 1542541 := \mathbf{2994992} \\
1502 \times 1001 + 1001 \times 2051 &= 1503502 + 2053051 := \mathbf{3556553} \\
1512 \times 1001 + 1001 \times 2151 &= 1513512 + 2153151 := \mathbf{3666663} \\
1522 \times 1001 + 1001 \times 2251 &= 1523522 + 2253251 := \mathbf{3776773} \\
1532 \times 1001 + 1001 \times 2351 &= 1533532 + 2353351 := \mathbf{3886883} \\
1452 \times 1001 + 1001 \times 2541 &= 1453452 + 2543541 := \mathbf{3996993} \\
1542 \times 1001 + 1001 \times 2451 &= 1543542 + 2453451 := \mathbf{3996993} \\
1503 \times 1001 + 1001 \times 3051 &= 1504503 + 3054051 := \mathbf{4558554} \\
1513 \times 1001 + 1001 \times 3151 &= 1514513 + 3154151 := \mathbf{4668664} \\
1523 \times 1001 + 1001 \times 3251 &= 1524523 + 3254251 := \mathbf{4778774} \\
1533 \times 1001 + 1001 \times 3351 &= 1534533 + 3354351 := \mathbf{4888884} \\
1453 \times 1001 + 1001 \times 3541 &= 1454453 + 3544541 := \mathbf{4998994} \\
1543 \times 1001 + 1001 \times 3451 &= 1544543 + 3454451 := \mathbf{4998994}
\end{aligned}$$

$$\begin{aligned}
1551 \times 1001 + 1001 \times 1551 &= 1552551 + 1552551 := \mathbf{3105102} \\
2001 \times 1002 + 2001 \times 1002 &= 2005002 + 2005002 := \mathbf{4010004} \\
1552 \times 1001 + 1001 \times 2551 &= 1553552 + 2553551 := \mathbf{4107103} \\
2001 \times 1012 + 2101 \times 1002 &= 2025012 + 2105202 := \mathbf{4130214} \\
2001 \times 1102 + 2011 \times 1002 &= 2205102 + 2015022 := \mathbf{4220124} \\
2001 \times 1022 + 2201 \times 1002 &= 2045022 + 2205402 := \mathbf{4250424} \\
2001 \times 1112 + 2111 \times 1002 &= 2225112 + 2115222 := \mathbf{4340334} \\
2001 \times 1202 + 2021 \times 1002 &= 2405202 + 2025042 := \mathbf{4430244} \\
2001 \times 1122 + 2211 \times 1002 &= 2245122 + 2215422 := \mathbf{4460544} \\
2001 \times 1212 + 2121 \times 1002 &= 2425212 + 2125242 := \mathbf{4550454} \\
2001 \times 1222 + 2221 \times 1002 &= 2445222 + 2225442 := \mathbf{4670664} \\
2003 \times 1001 + 1001 \times 3002 &= 2005003 + 3005002 := \mathbf{5010005} \\
1553 \times 1001 + 1001 \times 3551 &= 1554553 + 3554551 := \mathbf{5109104} \\
2003 \times 1101 + 1011 \times 3002 &= 2205303 + 3035022 := \mathbf{5240325} \\
2003 \times 1011 + 1101 \times 3002 &= 2025033 + 3305202 := \mathbf{5330235} \\
1504 \times 1001 + 1001 \times 4051 &= 1505504 + 4055051 := \mathbf{5560555} \\
2003 \times 1111 + 1111 \times 3002 &= 2225333 + 3335222 := \mathbf{5560555}
\end{aligned}$$

5 Palindromic-Type Numbers with Square

This subsection deals with square of **palindromic-type expressions**. This we have divided in two subsections. One when final sum is palindrome and second when final sum is not a palindrome. This we have done only up to width 6, i.e., 6 digits.

5.1 Palindromic Sum

Below are numbers, where squaring each multiplicative factor in each palindromic-type number lead us to final sum as a palindrome:

$$1^2 + 1^2 = 1 + 1 := \mathbf{2}$$

$$2^2 + 2^2 = 4 + 4 := \mathbf{8}$$

$$11^2 + 11^2 = 121 + 121 := \mathbf{242}$$

$$12^2 + 21^2 = 144 + 441 := \mathbf{585}$$

$$101^2 + 101^2 = 10201 + 10201 := \mathbf{20402}$$

$$111^2 + 111^2 = 12321 + 12321 := \mathbf{24642}$$

$$102^2 + 201^2 = 10404 + 40401 := \mathbf{50805}$$

$$1001^2 + 1001^2 = 1002001 + 1002001 := \mathbf{2004002}$$

$$1011^2 + 1101^2 = 1022121 + 1212201 := \mathbf{2234322}$$

$$1111^2 + 1111^2 = 1234321 + 1234321 := \mathbf{2468642}$$

$$1021^2 + 1201^2 = 1042441 + 1442401 := \mathbf{2484842}$$

$$1002^2 + 2001^2 = 1004004 + 4004001 := \mathbf{5008005}$$

$$1102^2 + 2011^2 = 1214404 + 4044121 := \mathbf{5258525}$$

$$1012^2 + 2101^2 = 1024144 + 4414201 := \mathbf{5438345}$$

$$1022^2 + 2201^2 = 1044484 + 4844401 := \mathbf{5888885}$$

$$10001^2 + 10001^2 = 100020001 + 100020001 := \mathbf{200040002}$$

$$10101^2 + 10101^2 = 102030201 + 102030201 := \mathbf{204060402}$$

$$10011^2 + 11001^2 = 100220121 + 121022001 := \mathbf{221242122}$$

$$10111^2 + 11101^2 = 102232321 + 123232201 := \mathbf{225464522}$$

$$11011^2 + 11101^2 = 121242121 + 121242121 := \mathbf{242484242}$$

$$10021^2 + 12001^2 = 100420441 + 144024001 := \mathbf{244444442}$$

$$10121^2 + 12101^2 = 102434641 + 146434201 := \mathbf{248868842}$$

$$10031^2 + 13001^2 = 100620961 + 169026001 := \mathbf{269646962}$$

$$10002^2 + 20001^2 = 100040004 + 400040001 := \mathbf{500080005}$$

$$11002^2 + 20011^2 = 121044004 + 400440121 := \mathbf{521484125}$$

$$10012^2 + 21001^2 = 100240144 + 441042001 := \mathbf{541282145}$$

$$12002^2 + 20021^2 = 144048004 + 400840441 := \mathbf{544888445}$$

$$10022^2 + 22001^2 = 100440484 + 484044001 := \mathbf{584484485}$$

$$100001^2 + 100001^2 = 10000200001 + 10000200001 := \mathbf{20000400002}$$

$$100101^2 + 101001^2 = 10020210201 + 10201202001 := \mathbf{20221412202}$$

$$101101^2 + 101101^2 = 10221412201 + 10221412201 := \mathbf{20442824402}$$

$$100201^2 + 102001^2 = 10040240401 + 10404204001 := \mathbf{20444444402}$$

$$100301^2 + 103001^2 = 10060290601 + 10609206001 := \mathbf{20669496602}$$

$$100011^2 + 110001^2 = 10002200121 + 12100220001 := \mathbf{22102420122}$$

$$101011^2 + 110101^2 = 10203222121 + 12122230201 := \mathbf{22325452322}$$

$$100111^2 + 111001^2 = 10022212321 + 12321222001 := \mathbf{22343434322}$$

$$101111^2 + 111101^2 = 10223434321 + 12343432201 := \mathbf{22566866522}$$

$$100211^2 + 112001^2 = 10042244521 + 12544224001 := \mathbf{22586468522}$$

$$110011^2 + 110011^2 = 12102420121 + 12102420121 := \mathbf{24204840242}$$

$$100021^2 + 120001^2 = 10004200441 + 14400240001 := \mathbf{24404440442}$$

$$110111^2 + 111011^2 = 12124432321 + 12323442121 := \mathbf{24447874442}$$

$$101021^2 + 120101^2 = 10205242441 + 14424250201 := \mathbf{24629492642}$$

$$100121^2 + 121001^2 = 10024214641 + 14641242001 := \mathbf{24665456642}$$

$$100031^2 + 130001^2 = 10006200961 + 16900260001 := \mathbf{26906460962}$$

$$100002^2 + 200001^2 = 10000400004 + 40000400001 := \mathbf{50000800005}$$

$$101002^2 + 200101^2 = 10201404004 + 40040410201 := \mathbf{50241814205}$$

$$100102^2 + 201001^2 = 10020410404 + 40401402001 := \mathbf{50421812405}$$

$$102002^2 + 200201^2 = 10404408004 + 40080440401 := \mathbf{50484848405}$$

$$100202^2 + 202001^2 = 10040440804 + 40804404001 := \mathbf{50844844805}$$

$$110002^2 + 200011^2 = 12100440004 + 40004400121 := \mathbf{52104840125}$$

$$111002^2 + 200111^2 = 12321444004 + 40044412321 := \mathbf{52365856325}$$

$$110102^2 + 201011^2 = 12122450404 + 40405422121 := \mathbf{52527872525}$$

$$100012^2 + 210001^2 = 10002400144 + 44100420001 := \mathbf{54102820145}$$

$$101012^2 + 210101^2 = 10203424144 + 44142430201 := \mathbf{54345854345}$$

$$120002^2 + 200021^2 = 14400480004 + 40008400441 := \mathbf{54408880445}$$

$$100112^2 + 211001^2 = 10022412544 + 44521422001 := \mathbf{54543834545}$$

$$121002^2 + 200121^2 = 14641484004 + 40048414641 := \mathbf{54689898645}$$

$$100212^2 + 212001^2 = 10042444944 + 44944424001 := \mathbf{54986868945}$$

$$100022^2 + 220001^2 = 10004400484 + 48400440001 := \mathbf{58404840485}$$

$$101022^2 + 220101^2 = 10205444484 + 48444450201 := \mathbf{58649894685}$$

$$100122^2 + 221001^2 = 10024414884 + 48841442001 := \mathbf{58865856885}$$

5.2 Non Palindromic Sum

Below are examples of square of **palindromic-type expressions** with square resulting in non palindromic numbers.

$$3^2 + 3^2 = 9 + 9 := \mathbf{18}$$

$$13^2 + 31^2 = 169 + 961 := \mathbf{1130}$$

$$22^2 + 22^2 = 484 + 484 := \mathbf{968}$$

$$121^2 + 121^2 = 14641 + 14641 := \mathbf{29282}$$

$$112^2 + 211^2 = 12544 + 44521 := \mathbf{57065}$$

$$122^2 + 221^2 = 14884 + 48841 := \mathbf{63725}$$

$$202^2 + 202^2 = 40804 + 40804 := \mathbf{81608}$$

$$212^2 + 212^2 = 44944 + 44944 := \mathbf{89888}$$

$$103^2 + 301^2 = 10609 + 90601 := \mathbf{101210}$$

$$113^2 + 311^2 = 12769 + 96721 := \mathbf{109490}$$

$$1121^2 + 1211^2 = 1256641 + 1466521 := \mathbf{2723162}$$

$$1031^2 + 1301^2 = 1062961 + 1692601 := \mathbf{2755562}$$

$$1202^2 + 2021^2 = 1444804 + 4084441 := \mathbf{5529245}$$

$$1112^2 + 2111^2 = 1236544 + 4456321 := \mathbf{5692865}$$

$$1212^2 + 2121^2 = 1468944 + 4498641 := \mathbf{5967585}$$

$$1122^2 + 2211^2 = 1258884 + 4888521 := \mathbf{6147405}$$

$$2002^2 + 2002^2 = 4008004 + 4008004 := \mathbf{8016008}$$

$$2012^2 + 2102^2 = 4048144 + 4418404 := \mathbf{8466548}$$

$$2022^2 + 2202^2 = 4088484 + 4848804 := \mathbf{8937288}$$

$$1003^2 + 3001^2 = 1006009 + 9006001 := \mathbf{10012010}$$

$$1103^2 + 3011^2 = 1216609 + 9066121 := \mathbf{10282730}$$

$$1013^2 + 3101^2 = 1026169 + 9616201 := \mathbf{10642370}$$

$$1113^2 + 3111^2 = 1238769 + 9678321 := \mathbf{10917090}$$

$$10201^2 + 10201^2 = 104060401 + 104060401 := \mathbf{208120802}$$

$$10211^2 + 11201^2 = 104264521 + 125462401 := \mathbf{229726922}$$

$$11111^2 + 11111^2 = 123454321 + 123454321 := \mathbf{246908642}$$

$$11211^2 + 11211^2 = 125686521 + 125686521 := \mathbf{251373042}$$

$$11021^2 + 12011^2 = 121462441 + 144264121 := \mathbf{265726562}$$

$$11121^2 + 12111^2 = 123676641 + 146676321 := \mathbf{270352962}$$

$$11031^2 + 13011^2 = 121682961 + 169286121 := \mathbf{290969082}$$

$$10102^2 + 20101^2 = 102050404 + 404050201 := \mathbf{506100605}$$

$$10202^2 + 20201^2 = 104080804 + 408080401 := \mathbf{512161205}$$

$$11102^2 + 20111^2 = 123254404 + 404452321 := \mathbf{527706725}$$

$$11202^2 + 20211^2 = 125484804 + 408484521 := \mathbf{533969325}$$

$$10112^2 + 21101^2 = 102252544 + 445252201 := \mathbf{547504745}$$

$$12102^2 + 20121^2 = 146458404 + 404854641 := \mathbf{551313045}$$

$$10212^2 + 21201^2 = 104284944 + 449482401 := \mathbf{553767345}$$

$$12202^2 + 20221^2 = 148888804 + 408888841 := \mathbf{557777645}$$

$$11012^2 + 21011^2 = 121264144 + 441462121 := \mathbf{562726265}$$

$$11112^2 + 21111^2 = 123476544 + 445674321 := \mathbf{569150865}$$

$$12012^2 + 21021^2 = 144288144 + 441882441 := \mathbf{586170585}$$

$$10122^2 + 22101^2 = 102454884 + 488454201 := \mathbf{590909085}$$

$$11022^2 + 22011^2 = 121484484 + 484484121 := \mathbf{605968605}$$

$$11122^2 + 22111^2 = 123698884 + 488896321 := \mathbf{612595205}$$

$$20002^2 + 20002^2 = 400080004 + 400080004 := \mathbf{800160008}$$

$$20102^2 + 20102^2 = 404090404 + 404090404 := \mathbf{808180808}$$

$$20012^2 + 21002^2 = 400480144 + 441084004 := \mathbf{841564148}$$

$$20112^2 + 21102^2 = 404492544 + 445294404 := \mathbf{849786948}$$

$$20022^2 + 22002^2 = 400880484 + 484088004 := \mathbf{884968488}$$

$$20122^2 + 22102^2 = 404894884 + 488498404 := \mathbf{893393288}$$

$$10003^2 + 30001^2 = 100060009 + 900060001 := \mathbf{1000120010}$$

$$10103^2 + 30101^2 = 102070609 + 906070201 := \mathbf{1008140810}$$

$$11003^2 + 30011^2 = 121066009 + 900660121 := \mathbf{1021726130}$$

$$11103^2 + 30111^2 = 123276609 + 906672321 := \mathbf{1029948930}$$

$$10013^2 + 31001^2 = 100260169 + 961062001 := \mathbf{1061322170}$$

$$10113^2 + 31101^2 = 102272769 + 967272201 := \mathbf{1069544970}$$

$$11013^2 + 31011^2 = 121286169 + 961682121 := \mathbf{1082968290}$$

$$11113^2 + 31111^2 = 123498769 + 967894321 := \mathbf{1091393090}$$

$$101201^2 + 102101^2 = 10241642401 + 10424614201 := \mathbf{20666256602}$$

$$101301^2 + 103101^2 = 10261892601 + 10629816201 := \mathbf{20891708802}$$

$$102011^2 + 110201^2 = 10406244121 + 12144260401 := \mathbf{22550504522}$$

$$102111^2 + 111201^2 = 10426656321 + 12365662401 := \mathbf{22792318722}$$

$$101211^2 + 112101^2 = 10243666521 + 12566634201 := \mathbf{22810300722}$$

$$100311^2 + 113001^2 = 10062296721 + 12769226001 := \mathbf{22831522722}$$

$$111111^2 + 111111^2 = 12345654321 + 12345654321 := \mathbf{24691308642}$$

$$110211^2 + 112011^2 = 12146464521 + 12546464121 := \mathbf{24692928642}$$

$$102021^2 + 120201^2 = 10408284441 + 14448280401 := \mathbf{24856564842}$$

$$101121^2 + 121101^2 = 10225456641 + 14665452201 := \mathbf{24890908842}$$

$$100221^2 + 122001^2 = 10044248841 + 14884244001 := \mathbf{24928492842}$$

$$111211^2 + 112111^2 = 12367886521 + 12568876321 := \mathbf{24936762842}$$

$$102121^2 + 121201^2 = 10428698641 + 14689682401 := \mathbf{25118381042}$$

$$110021^2 + 120011^2 = 12104620441 + 14402640121 := \mathbf{26507260562}$$

$$111021^2 + 120111^2 = 12325662441 + 14426652321 := \mathbf{26752314762}$$

$$110121^2 + 121011^2 = 12126634641 + 14643662121 := \mathbf{26770296762}$$

$$111121^2 + 121111^2 = 12347876641 + 14667874321 := \mathbf{27015750962}$$

$$110221^2 + 122011^2 = 12148668841 + 14886684121 := \mathbf{27035352962}$$

$$101031^2 + 130101^2 = 10207262961 + 16926270201 := \mathbf{27133533162}$$

$$110031^2 + 130011^2 = 12106820961 + 16902860121 := \mathbf{29009681082}$$

$$111031^2 + 130111^2 = 12327882961 + 16928872321 := \mathbf{29256755282}$$

$$101102^2 + 201101^2 = 10221614404 + 40441612201 := \mathbf{50663226605}$$

$$102102^2 + 201201^2 = 10424818404 + 40481842401 := \mathbf{50906660805}$$

$$101202^2 + 202101^2 = 10241844804 + 40844814201 := \mathbf{51086659005}$$

$$\begin{array}{ll}
110102^2 + 201011^2 = 12122450404 + 40405422121 & := \mathbf{52527872525} \\
112002^2 + 200211^2 = 12544448004 + 40084444521 & := \mathbf{52628892525} \\
111102^2 + 201111^2 = 12343654404 + 40445634321 & := \mathbf{52789288725} \\
110202^2 + 202011^2 = 12144480804 + 40808444121 & := \mathbf{52952924925} \\
112102^2 + 201211^2 = 12566858404 + 40485866521 & := \mathbf{53052724925} \\
111202^2 + 202111^2 = 12365884804 + 40848856321 & := \mathbf{53214741125} \\
102012^2 + 210201^2 = 10406448144 + 44184460401 & := \mathbf{54590908545} \\
101112^2 + 211101^2 = 10223636544 + 44563632201 & := \mathbf{54787268745} \\
120102^2 + 201021^2 = 14424490404 + 40409442441 & := \mathbf{54833932845} \\
122002^2 + 200221^2 = 14884488004 + 40088448841 & := \mathbf{54972936845} \\
121102^2 + 201121^2 = 14665694404 + 40449656641 & := \mathbf{55115351045} \\
101212^2 + 212101^2 = 10243868944 + 44986834201 & := \mathbf{55230703145} \\
110012^2 + 210011^2 = 12102640144 + 44104620121 & := \mathbf{56207260265} \\
111012^2 + 210111^2 = 12323664144 + 44146632321 & := \mathbf{56470296465} \\
110112^2 + 211011^2 = 12124652544 + 44525642121 & := \mathbf{56650294665} \\
112012^2 + 210211^2 = 12546688144 + 44188664521 & := \mathbf{56735352665} \\
111112^2 + 211111^2 = 12345876544 + 44567854321 & := \mathbf{56913730865} \\
110212^2 + 212011^2 = 12146684944 + 44948664121 & := \mathbf{57095349065} \\
120012^2 + 210021^2 = 14402880144 + 44108820441 & := \mathbf{58511700585} \\
102022^2 + 220201^2 = 10408488484 + 48488480401 & := \mathbf{58896968885} \\
120112^2 + 211021^2 = 14426892544 + 44529862441 & := \mathbf{58956754985} \\
101122^2 + 221101^2 = 10225658884 + 48885652201 & := \mathbf{59111311085} \\
110022^2 + 220011^2 = 12104840484 + 48404840121 & := \mathbf{60509680605} \\
111022^2 + 220111^2 = 12325884484 + 48448852321 & := \mathbf{60774736805} \\
110122^2 + 221011^2 = 12126854884 + 48845862121 & := \mathbf{60972717005} \\
200002^2 + 200002^2 = 40000800004 + 40000800004 & := \mathbf{80001600008} \\
200102^2 + 201002^2 = 40040810404 + 40401804004 & := \mathbf{80442614408} \\
200202^2 + 202002^2 = 40080840804 + 40804808004 & := \mathbf{80885648808} \\
200012^2 + 210002^2 = 40004800144 + 44100840004 & := \mathbf{84105640148} \\
201012^2 + 210102^2 = 40405824144 + 44142850404 & := \mathbf{84548674548} \\
200112^2 + 211002^2 = 40044812544 + 44521844004 & := \mathbf{84566656548} \\
202012^2 + 210202^2 = 40808848144 + 44184880804 & := \mathbf{84993728948} \\
200212^2 + 212002^2 = 40084844944 + 44944848004 & := \mathbf{85029692948} \\
200022^2 + 220002^2 = 40008800484 + 48400880004 & := \mathbf{88409680488} \\
201022^2 + 220102^2 = 40409844484 + 48444890404 & := \mathbf{88854734888} \\
200122^2 + 221002^2 = 40048814884 + 48841884004 & := \mathbf{88890698888} \\
100003^2 + 300001^2 = 10000600009 + 90000600001 & := \mathbf{100001200010} \\
101003^2 + 300101^2 = 10201606009 + 90060610201 & := \mathbf{100262216210} \\
100103^2 + 301001^2 = 10020610609 + 90601602001 & := \mathbf{100622212610} \\
101103^2 + 301101^2 = 10221816609 + 90661812201 & := \mathbf{100883628810} \\
110003^2 + 300011^2 = 12100660009 + 90006600121 & := \mathbf{102107260130} \\
111003^2 + 300111^2 = 12321666009 + 90066612321 & := \mathbf{102388278330} \\
110103^2 + 301011^2 = 12122670609 + 90607622121 & := \mathbf{102730292730} \\
111103^2 + 301111^2 = 12343876609 + 90667834321 & := \mathbf{103011710930} \\
100013^2 + 310001^2 = 10002600169 + 96100620001 & := \mathbf{106103220170} \\
101013^2 + 310101^2 = 10203626169 + 96162630201 & := \mathbf{106366256370} \\
100113^2 + 311001^2 = 10022612769 + 96721622001 & := \mathbf{106744234770} \\
101113^2 + 311101^2 = 10223838769 + 96783832201 & := \mathbf{107007670970} \\
110013^2 + 310011^2 = 12102860169 + 96106820121 & := \mathbf{108209680290} \\
111013^2 + 310111^2 = 12323886169 + 96168832321 & := \mathbf{108492718490} \\
110113^2 + 311011^2 = 12124872769 + 96727842121 & := \mathbf{108852714890}
\end{array}$$

6 Same Digits Multiplicative Factors

In this section, we shall give **palindromic-type expressions** formed by equal number of digits in each multiplicative factor. In each factor same digits are used. This we have divided in two subsections, one resulting in palindromic sum and another resulting in non palindromic sum. We worked only up to width 6, i.e, up to 6 digits.

6.1 Palindromic Sum

$$1101 \times 1011 + 1101 \times 1011 = 1113111 + 1113111 := \mathbf{2226222}$$

$$1201 \times 1102 + 2011 \times 1021 = 1323502 + 2053231 := \mathbf{3376733}$$

$$1021 \times 1012 + 2101 \times 1201 = 1033252 + 2523301 := \mathbf{3556553}$$

$$10101 \times 10011 + 11001 \times 10101 = 101121111 + 111121101 := \mathbf{212242212}$$

$$11001 \times 10011 + 11001 \times 10011 = 110131011 + 110131011 := \mathbf{220262022}$$

$$11101 \times 10111 + 11101 \times 10111 = 112242211 + 112242211 := \mathbf{224484422}$$

$$10201 \times 10021 + 12001 \times 10201 = 102224221 + 122422201 := \mathbf{224646422}$$

$11011 \times 10111 + 11101 \times 11011 = 111332221 + 122233111 := 233565332$
 $10211 \times 10121 + 12101 \times 11201 = 103345531 + 135543301 := 238888832$
 $11021 \times 10121 + 12101 \times 12011 = 111543541 + 145345111 := 256888652$
 $10201 \times 10012 + 21001 \times 10201 = 102132412 + 214231201 := 316363613$
 $11002 \times 10201 + 10201 \times 20011 = 112231402 + 204132211 := 316363613$
 $12001 \times 10102 + 20101 \times 10021 = 121234102 + 201432121 := 322666223$
 $12001 \times 11002 + 20011 \times 10021 = 132035002 + 200530231 := 332565233$
 $11201 \times 11012 + 21011 \times 10211 = 123345412 + 214543321 := 337888733$
 $12101 \times 11102 + 20111 \times 10121 = 134345302 + 203543431 := 337888733$
 $10102 \times 10021 + 12001 \times 20101 = 101232142 + 241232101 := 342464243$
 $11012 \times 10211 + 11201 \times 21011 = 112443532 + 235344211 := 347787743$
 $10021 \times 10012 + 21001 \times 12001 = 100330252 + 252033001 := 352363253$
 $12011 \times 11102 + 20111 \times 11021 = 133346122 + 221643331 := 354989453$
 $10121 \times 10112 + 21101 \times 12101 = 102343552 + 255343201 := 357686753$
 $11021 \times 10112 + 21101 \times 12011 = 111444352 + 253444111 := 364888463$
 $10103 \times 10031 + 13001 \times 30101 = 101343193 + 391343101 := 492686294$
 $11002 \times 10102 + 20101 \times 20011 = 111142204 + 402241111 := 513383315$
 $10102 \times 10012 + 21001 \times 20101 = 101141224 + 422141101 := 523282325$
 $12002 \times 10202 + 20201 \times 20021 = 122444404 + 404444221 := 526888625$
 $10202 \times 10022 + 22001 \times 20201 = 102244444 + 444442201 := 546686645$

$101001 \times 100101 + 101001 \times 100101 = 10110301101 + 10110301101 := 20220602202$
 $101001 \times 100011 + 110001 \times 100101 = 10101211011 + 11011210101 := 21112421112$
 $100101 \times 100011 + 110001 \times 101001 = 10011201111 + 11110211001 := 21121412112$
 $101101 \times 100111 + 111001 \times 101101 = 10121322211 + 11222312101 := 21343634312$
 $101101 \times 101011 + 110101 \times 101101 = 10212313111 + 11131321201 := 21343634312$
 $102101 \times 102011 + 110201 \times 101201 = 10415425111 + 11152451401 := 21567876512$
 $101201 \times 100211 + 112001 \times 102101 = 10141453411 + 11435414101 := 21576867512$
 $110001 \times 100011 + 110001 \times 100011 = 11001310011 + 11001310011 := 22002620022$
 $111001 \times 100111 + 111001 \times 100111 = 11112421111 + 11112421111 := 22224842222$
 $102001 \times 100021 + 120001 \times 100201 = 10202242021 + 12024220201 := 22226462222$
 $110101 \times 100111 + 111001 \times 101011 = 11022321211 + 11212322011 := 22234643222$
 $110101 \times 101011 + 110101 \times 101011 = 11121412111 + 11121412111 := 22242824222$
 $110011 \times 101101 + 101101 \times 110011 = 11122222111 + 11122222111 := 22244444222$
 $100201 \times 100021 + 120001 \times 102001 = 10022204221 + 12240222001 := 22262426222$
 $101011 \times 100111 + 111001 \times 110101 = 10112312221 + 12221321101 := 22333633322$
 $100111 \times 100111 + 111001 \times 111001 = 10022212321 + 12321222001 := 22343434322$
 $102101 \times 100121 + 121001 \times 101201 = 10222454221 + 12245422201 := 22467876422$
 $102101 \times 101021 + 120101 \times 101201 = 10314345121 + 12154341301 := 22468686422$
 $110201 \times 100211 + 112001 \times 102011 = 11043352411 + 11425334011 := 22468686422$
 $101201 \times 101021 + 120101 \times 102101 = 10223426221 + 12262432201 := 22485858422$

$101201 \times 100121 + 121001 \times 102101 = 10132345321 + 12354323101 := 22486668422$
 $110011 \times 100111 + 111001 \times 110011 = 11013311221 + 12211331011 := 23224642232$
 $110011 \times 101011 + 110101 \times 110011 = 11112321121 + 12112321111 := 23224642232$
 $112001 \times 101021 + 120101 \times 100211 = 11314453021 + 12035441311 := 23349894332$
 $110201 \times 100121 + 121001 \times 102011 = 11033434321 + 12343433011 := 23376867332$
 $110021 \times 102101 + 101201 \times 120011 = 11233254121 + 12145233211 := 23378487332$
 $110021 \times 101201 + 102101 \times 120011 = 11134235221 + 12253243111 := 23387478332$
 $111011 \times 101111 + 111101 \times 110111 = 11224433221 + 12233442211 := 23457875432$
 $110111 \times 101111 + 111101 \times 111011 = 11133433321 + 12333433111 := 23466866432$
 $102011 \times 100121 + 121001 \times 110201 = 10213443331 + 13334431201 := 23547874532$
 $101021 \times 100211 + 112001 \times 120101 = 10123415431 + 13451432101 := 23574847532$
 $100211 \times 100121 + 121001 \times 112001 = 10033225531 + 13552233001 := 23585458532$
 $112001 \times 110021 + 120011 \times 100211 = 12322462021 + 12026422321 := 24348884342$
 $110201 \times 110021 + 120011 \times 102011 = 12124424221 + 12242442121 := 24366866342$
 $110021 \times 102011 + 110201 \times 120011 = 11223352231 + 13225332211 := 24448684442$
 $120011 \times 112001 + 100211 \times 110021 = 13441352011 + 11025314431 := 24466666442$
 $101021 \times 101021 + 120101 \times 120101 = 10205242441 + 14424250201 := 24629492642$
 $101021 \times 100121 + 121001 \times 120101 = 10114323541 + 14532341101 := 24646664642$
 $100121 \times 100121 + 121001 \times 121001 = 10024214641 + 14641242001 := 24665456642$
 $110021 \times 101021 + 120101 \times 120011 = 11114431441 + 14413441111 := 25527872552$
 $110021 \times 100121 + 121001 \times 120011 = 11015412541 + 14521451011 := 25536863552$
 $102001 \times 101002 + 200101 \times 100201 = 10302305002 + 20050320301 := 30352625303$
 $100201 \times 100102 + 201001 \times 102001 = 10030320502 + 20502303001 := 30532623503$
 $102001 \times 100012 + 210001 \times 100201 = 10201324012 + 21042310201 := 31243634213$
 $110002 \times 102001 + 100201 \times 200011 = 11220314002 + 20041302211 := 31261616213$
 $110002 \times 100201 + 102001 \times 200011 = 11022310402 + 20401322011 := 31423632413$
 $100201 \times 100012 + 210001 \times 102001 = 10021302412 + 21420312001 := 31441614413$
 $102101 \times 101012 + 210101 \times 101201 = 10313426212 + 21262431301 := 31575857513$
 $111002 \times 102101 + 101201 \times 200111 = 11333415202 + 20251433311 := 31584848513$
 $110102 \times 101201 + 102101 \times 201011 = 11142432502 + 20523424111 := 31665856613$
 $101201 \times 100112 + 211001 \times 102101 = 10131434512 + 21543413101 := 31674847613$
 $120001 \times 100102 + 201001 \times 100021 = 12012340102 + 20104321021 := 32116661123$
 $120001 \times 101002 + 200101 \times 100021 = 12120341002 + 20014302121 := 32134643123$
 $112001 \times 101012 + 210101 \times 100211 = 11313445012 + 21054431311 := 32367876323$
 $121001 \times 101102 + 201101 \times 100121 = 12233443102 + 20134433221 := 32367876323$
 $120101 \times 101102 + 201101 \times 101021 = 12142451302 + 20315424121 := 32457875423$
 $110012 \times 102101 + 101201 \times 210011 = 11232335212 + 21253323211 := 32485658423$
 $112001 \times 111002 + 200111 \times 100211 = 12432335002 + 20053323421 := 32485658423$
 $110201 \times 100112 + 211001 \times 102011 = 11032442512 + 21524423011 := 32556865523$
 $110012 \times 101201 + 102101 \times 210011 = 11133324412 + 21442333111 := 32575657523$
 $110201 \times 110102 + 201011 \times 102011 = 12133350502 + 20505333121 := 32638683623$

$112001 \times 110012 + 210011 \times 100211 = 12321454012 + 21045412321 := 33366866333$
 $111002 \times 102011 + 110201 \times 200111 = 11323425022 + 22052432311 := 33375857333$
 $121001 \times 110102 + 201011 \times 100121 = 13322452102 + 20125422331 := 33447874433$
 $121001 \times 111002 + 200111 \times 100121 = 13431353002 + 20035313431 := 33466666433$
 $120101 \times 110102 + 201011 \times 101021 = 13223360302 + 20306332231 := 33529692533$
 $110102 \times 100211 + 112001 \times 201011 = 11033431522 + 22513433011 := 33546864533$
 $110201 \times 110012 + 210011 \times 102011 = 12123432412 + 21423432121 := 33546864533$
 $120101 \times 111002 + 200111 \times 101021 = 13331451202 + 20215413331 := 33546864533$
 $100211 \times 100112 + 211001 \times 112001 = 10032323632 + 23632323001 := 33664646633$
 $101002 \times 100021 + 120001 \times 200101 = 10102321042 + 24012320101 := 34114641143$
 $100102 \times 100021 + 120001 \times 201001 = 10012302142 + 24120321001 := 34132623143$
 $101102 \times 101021 + 120101 \times 201101 = 10213425142 + 24152431201 := 34365856343$
 $110012 \times 102011 + 110201 \times 210011 = 11222434132 + 23143422211 := 34365856343$
 $101102 \times 100121 + 121001 \times 201101 = 10122433342 + 24333422101 := 34455855443$
 $110012 \times 100211 + 112001 \times 210011 = 11024412532 + 23521442011 := 34545854543$
 $100021 \times 100012 + 210001 \times 120001 = 10003300252 + 25200330001 := 35203630253$
 $110021 \times 101102 + 201101 \times 120011 = 11123343142 + 24134332111 := 35257675253$
 $120011 \times 110102 + 201011 \times 110021 = 13213451122 + 22115431231 := 35328882353$
 $120011 \times 111002 + 200111 \times 110021 = 13321461022 + 22016412331 := 35337873353$
 $101021 \times 101012 + 210101 \times 120101 = 10204333252 + 25233340201 := 35437673453$
 $101021 \times 100112 + 211001 \times 120101 = 10113414352 + 25341431101 := 35454845453$
 $101012 \times 100121 + 121001 \times 210101 = 10113422452 + 25422431101 := 35535853553$
 $100121 \times 100112 + 211001 \times 121001 = 10023313552 + 25531332001 := 35554645553$
 $110021 \times 101012 + 210101 \times 120011 = 11113441252 + 25214431111 := 36327872363$
 $110021 \times 100112 + 211001 \times 120011 = 11014422352 + 25322441011 := 36336863363$
 $100221 \times 100122 + 221001 \times 122001 = 10034326962 + 26962343001 := 36996669963$
 $103001 \times 100013 + 310001 \times 100301 = 10301439013 + 31093410301 := 41394849314$
 $110003 \times 100301 + 103001 \times 300011 = 11033410903 + 30901433011 := 41934843914$
 $100301 \times 100013 + 310001 \times 103001 = 10031403913 + 31930413001 := 41961816914$
 $130001 \times 101003 + 300101 \times 100031 = 13130491003 + 30019403131 := 43149894134$
 $101003 \times 100031 + 130001 \times 300101 = 10103431093 + 39013430101 := 49116861194$
 $100103 \times 100031 + 130001 \times 301001 = 10013403193 + 39130431001 := 49143834194$
 $110002 \times 101002 + 200101 \times 200011 = 11110422004 + 40022401111 := 51132823115$
 $110002 \times 100102 + 201001 \times 200011 = 11011420204 + 40202411011 := 51213831215$
 $110002 \times 110002 + 200011 \times 200011 = 12100440004 + 40004400121 := 52104840125$
 $101002 \times 100012 + 210001 \times 200101 = 10101412024 + 42021410101 := 52122822125$
 $100102 \times 100012 + 210001 \times 201001 = 10011401224 + 42210411001 := 52221812225$
 $120002 \times 102002 + 200201 \times 200021 = 12240444004 + 40044404221 := 52284848225$
 $120002 \times 100202 + 202001 \times 200021 = 12024440404 + 40404442021 := 52428882425$
 $111002 \times 100112 + 211001 \times 200111 = 11112632224 + 42223621111 := 53336253335$
 $110012 \times 101102 + 201101 \times 210011 = 11122433224 + 42233422111 := 53355855335$

$$\begin{aligned}
102002 \times 100022 + 220001 \times 200201 &= 10202444044 + 44044420201 := \mathbf{54246864245} \\
100202 \times 100022 + 220001 \times 202001 &= 10022404444 + 44440422001 := \mathbf{54462826445} \\
100112 \times 100112 + 211001 \times 211001 &= 10022412544 + 44521422001 := \mathbf{54543834545} \\
110022 \times 102102 + 201201 \times 220011 &= 11233466244 + 44266433211 := \mathbf{55499899455} \\
100212 \times 100122 + 221001 \times 212001 &= 10033425864 + 46852433001 := \mathbf{56885858865}
\end{aligned}$$

6.2 Non Palindromic Sum

$$21 \times 12 + 21 \times 12 = 252 + 252 := \mathbf{504}$$

$$121 \times 112 + 211 \times 121 = 13552 + 25531 := \mathbf{39083}$$

$$201 \times 102 + 201 \times 102 = 20502 + 20502 := \mathbf{41004}$$

$$211 \times 112 + 211 \times 112 = 23632 + 23632 := \mathbf{47264}$$

$$221 \times 122 + 221 \times 122 = 26962 + 26962 := \mathbf{53924}$$

$$212 \times 122 + 221 \times 212 = 25864 + 46852 := \mathbf{72716}$$

$$1201 \times 1021 + 1201 \times 1021 = 1226221 + 1226221 := \mathbf{2452442}$$

$$1211 \times 1121 + 1211 \times 1121 = 1357531 + 1357531 := \mathbf{2715062}$$

$$1201 \times 1012 + 2101 \times 1021 = 1215412 + 2145121 := \mathbf{3360533}$$

$$1102 \times 1021 + 1201 \times 2011 = 1125142 + 2415211 := \mathbf{3540353}$$

$$1211 \times 1112 + 2111 \times 1121 = 1346632 + 2366431 := \mathbf{3713063}$$

$$1121 \times 1112 + 2111 \times 1211 = 1246552 + 2556421 := \mathbf{3802973}$$

$$2001 \times 1002 + 2001 \times 1002 = 2005002 + 2005002 := \mathbf{4010004}$$

$$1221 \times 1122 + 2211 \times 1221 = 1369962 + 2699631 := \mathbf{4069593}$$

$$1221 \times 1212 + 2121 \times 1221 = 1479852 + 2589741 := \mathbf{4069593}$$

$$2101 \times 1012 + 2101 \times 1012 = 2126212 + 2126212 := \mathbf{4252424}$$

$$2011 \times 1012 + 2101 \times 1102 = 2035132 + 2315302 := \mathbf{4350434}$$

$$2011 \times 1102 + 2011 \times 1102 = 2216122 + 2216122 := \mathbf{4432244}$$

$$2201 \times 1022 + 2201 \times 1022 = 2249422 + 2249422 := \mathbf{4498844}$$

$$1301 \times 1013 + 3101 \times 1031 = 1317913 + 3197131 := \mathbf{4515044}$$

$$2111 \times 1112 + 2111 \times 1112 = 2347432 + 2347432 := \mathbf{4694864}$$

$$2021 \times 1022 + 2201 \times 1202 = 2065462 + 2645602 := \mathbf{4711064}$$

$$2021 \times 1202 + 2021 \times 1202 = 2429242 + 2429242 := \mathbf{4858484}$$

$$1103 \times 1031 + 1301 \times 3011 = 1137193 + 3917311 := \mathbf{5054504}$$

$$2121 \times 1122 + 2211 \times 1212 = 2379762 + 2679732 := \mathbf{5059494}$$

$$2031 \times 1032 + 2301 \times 1302 = 2095992 + 2995902 := \mathbf{5091894}$$

$$2112 \times 1221 + 1221 \times 2112 = 2578752 + 2578752 := \mathbf{5157504}$$

$$1102 \times 1012 + 2101 \times 2011 = 1115224 + 4225111 := \mathbf{5340335}$$

$$1202 \times 1022 + 2201 \times 2021 = 1228444 + 4448221 := \mathbf{5676665}$$

$$1212 \times 1122 + 2211 \times 2121 = 1359864 + 4689531 := \mathbf{6049395}$$

$$2102 \times 1022 + 2201 \times 2012 = 2148244 + 4428412 := \mathbf{6576656}$$

$$2021 \times 2012 + 2102 \times 1202 = 4066252 + 2526604 := \mathbf{6592856}$$

$$2012 \times 1202 + 2021 \times 2102 = 2418424 + 4248142 := \mathbf{6666566}$$

$$2012 \times 1022 + 2201 \times 2102 = 2056264 + 4626502 := \mathbf{6682766}$$

$$2112 \times 1122 + 2211 \times 2112 = 2369664 + 4669632 := \mathbf{7039296}$$

$$2112 \times 1212 + 2121 \times 2112 = 2559744 + 4479552 := \mathbf{7039296}$$

$$2102 \times 2012 + 2102 \times 2012 = 4229224 + 4229224 := \mathbf{8458448}$$

$$1103 \times 1013 + 3101 \times 3011 = 1117339 + 9337111 := \mathbf{10454450}$$

$$2103 \times 1203 + 3021 \times 3012 = 2529909 + 9099252 := \mathbf{11629161}$$

$$2013 \times 1023 + 3201 \times 3102 = 2059299 + 9929502 := \mathbf{11988801}$$

$$11201 \times 10211 + 11201 \times 10211 = 114373411 + 114373411 := \mathbf{228746822}$$

$$11201 \times 10121 + 12101 \times 10211 = 113365321 + 123563311 := \mathbf{236928632}$$

$$10301 \times 10031 + 13001 \times 10301 = 103329331 + 133923301 := \mathbf{237252632}$$

$$12001 \times 10021 + 12001 \times 10021 = 120262021 + 120262021 := \mathbf{240524042}$$

$$12101 \times 10121 + 12101 \times 10121 = 122474221 + 122474221 := \mathbf{244948442}$$

$$11201 \times 11021 + 12011 \times 10211 = 123446221 + 122644321 := \mathbf{246090542}$$

$$11021 \times 10211 + 11201 \times 12011 = 112535431 + 134535211 := \mathbf{247070642}$$

$$12011 \times 10121 + 12101 \times 11021 = 121563331 + 133365121 := \mathbf{254928452}$$

$$11211 \times 11121 + 12111 \times 11211 = 124677531 + 135776421 := \mathbf{260453952}$$

$$12011 \times 11021 + 12011 \times 11021 = 132373231 + 132373231 := \mathbf{264746462}$$

$$12111 \times 11121 + 12111 \times 11121 = 134686431 + 134686431 := \mathbf{269372862}$$

$$12021 \times 10221 + 12201 \times 12021 = 122866641 + 146668221 := \mathbf{269534862}$$

$$10201 \times 10102 + 20101 \times 10201 = 103050502 + 205050301 := \mathbf{308100803}$$

$$11201 \times 10112 + 21101 \times 10211 = 113264512 + 215462311 := \mathbf{328726823}$$

$$11201 \times 11102 + 20111 \times 10211 = 124353502 + 205353421 := \mathbf{329706923}$$

$$12001 \times 10012 + 21001 \times 10021 = 120154012 + 210451021 := \mathbf{330605033}$$

$$12101 \times 10112 + 21101 \times 10121 = 122365312 + 213563221 := \mathbf{335928533}$$

$$11102 \times 10211 + 11201 \times 20111 = 113362522 + 225263311 := \mathbf{338625833}$$

$$10211 \times 10112 + 21101 \times 11201 = 103253632 + 236352301 := \mathbf{339605933}$$

$$12201 \times 10212 + 21201 \times 10221 = 124596612 + 216695421 := \mathbf{341292033}$$

$$12201 \times 11202 + 20211 \times 10221 = 136675602 + 206576631 := \mathbf{343252233}$$

$$12101 \times 11012 + 21011 \times 10121 = 133256212 + 212652331 := \mathbf{345908543}$$

$$12201 \times 10122 + 22101 \times 10221 = 123498522 + 225894321 := \mathbf{349392843}$$

$$11002 \times 10021 + 12001 \times 20011 = 110251042 + 240152011 := \mathbf{350403053}$$

$$12201 \times 12102 + 20121 \times 10221 = 147656502 + 205656741 := \mathbf{353313243}$$

$$12011 \times 10112 + 21101 \times 11021 = 121455232 + 232554121 := \mathbf{354009353}$$

$$11102 \times 10121 + 12101 \times 20111 = 112363342 + 243363211 := \mathbf{355726553}$$

$$12201 \times 11022 + 22011 \times 10221 = 134479422 + 224974431 := \mathbf{359453853}$$

$$11202 \times 10221 + 12201 \times 20211 = 114495642 + 246594411 := \mathbf{361090053}$$

$$11211 \times 11112 + 21111 \times 11211 = 124576632 + 236675421 := \mathbf{361252053}$$

$$12201 \times 12012 + 21021 \times 10221 = 146558412 + 214855641 := \mathbf{361414053}$$

$$10221 \times 10212 + 21201 \times 12201 = 104376852 + 258673401 := \mathbf{363050253}$$

$$\begin{aligned}
12011 \times 11012 + 21011 \times 11021 &= 132265132 + 231562231 := \mathbf{363827363} \\
11102 \times 11021 + 12011 \times 20111 &= 122355142 + 241553221 := \mathbf{363908363} \\
11012 \times 10121 + 12101 \times 21011 &= 111452452 + 254254111 := \mathbf{365706563} \\
12102 \times 10221 + 12201 \times 20121 &= 123694542 + 245496321 := \mathbf{369190863} \\
12111 \times 11112 + 21111 \times 11121 &= 134577432 + 234775431 := \mathbf{369352863} \\
10221 \times 10122 + 22101 \times 12201 &= 103456962 + 269654301 := \mathbf{373111263} \\
11021 \times 11012 + 21011 \times 12011 &= 121363252 + 252363121 := \mathbf{373726373} \\
12021 \times 10212 + 21201 \times 12021 &= 122758452 + 254857221 := \mathbf{377615673} \\
12021 \times 11202 + 20211 \times 12021 &= 134659242 + 242956431 := \mathbf{377615673} \\
11121 \times 11112 + 21111 \times 12111 &= 123576552 + 255675321 := \mathbf{379251873} \\
12012 \times 10221 + 12201 \times 21021 &= 122774652 + 256477221 := \mathbf{379251873} \\
11022 \times 10221 + 12201 \times 22011 &= 112655862 + 268556211 := \mathbf{381212073} \\
12211 \times 12112 + 21121 \times 11221 &= 147899632 + 236998741 := \mathbf{384898373} \\
12021 \times 10122 + 22101 \times 12021 &= 121676562 + 265676121 := \mathbf{387352683} \\
12102 \times 12021 + 12021 \times 20121 &= 145478142 + 241874541 := \mathbf{387352683} \\
11221 \times 11122 + 22111 \times 12211 &= 124799962 + 269997421 := \mathbf{394797383} \\
12021 \times 11022 + 22011 \times 12021 &= 132495462 + 264594231 := \mathbf{397089693} \\
12021 \times 12012 + 21021 \times 12021 &= 144396252 + 252693441 := \mathbf{397089693} \\
20001 \times 10002 + 20001 \times 10002 &= 200050002 + 200050002 := \mathbf{400100004} \\
20101 \times 10102 + 20101 \times 10102 &= 203060302 + 203060302 := \mathbf{406120604} \\
20201 \times 10202 + 20201 \times 10202 &= 206090602 + 206090602 := \mathbf{412181204} \\
20101 \times 10012 + 21001 \times 10102 &= 201251212 + 212152102 := \mathbf{413403314} \\
21001 \times 10012 + 21001 \times 10012 &= 210262012 + 210262012 := \mathbf{420524024} \\
10301 \times 10013 + 31001 \times 10301 &= 103143913 + 319341301 := \mathbf{422485214} \\
11003 \times 10301 + 10301 \times 30011 &= 113341903 + 309143311 := \mathbf{422485214} \\
20011 \times 10102 + 20101 \times 11002 &= 202151122 + 221151202 := \mathbf{423302324} \\
21101 \times 10112 + 21101 \times 10112 &= 213373312 + 213373312 := \mathbf{426746624} \\
20201 \times 10022 + 22001 \times 10202 &= 202454422 + 224454202 := \mathbf{426908624} \\
20011 \times 10012 + 21001 \times 11002 &= 200350132 + 231053002 := \mathbf{431403134} \\
13001 \times 10103 + 30101 \times 10031 &= 131349103 + 301943131 := \mathbf{433292234} \\
20111 \times 10112 + 21101 \times 11102 &= 203362432 + 234263302 := \mathbf{437625734} \\
21201 \times 10122 + 22101 \times 10212 &= 214596522 + 225695412 := \mathbf{440291934} \\
20011 \times 11002 + 20011 \times 11002 &= 220161022 + 220161022 := \mathbf{440322044} \\
20301 \times 10032 + 23001 \times 10302 &= 203659632 + 236956302 := \mathbf{440615934} \\
22001 \times 10022 + 22001 \times 10022 &= 220494022 + 220494022 := \mathbf{440988044} \\
13001 \times 10013 + 31001 \times 10031 &= 130179013 + 310971031 := \mathbf{441150044} \\
20211 \times 10212 + 21201 \times 11202 &= 206394732 + 237493602 := \mathbf{443888334} \\
11301 \times 11013 + 31011 \times 10311 &= 124457913 + 319754421 := \mathbf{444212334} \\
21011 \times 10112 + 21101 \times 11012 &= 212463232 + 232364212 := \mathbf{444827444} \\
20111 \times 11102 + 20111 \times 11102 &= 223272322 + 223272322 := \mathbf{446544644} \\
20021 \times 10202 + 20201 \times 12002 &= 204254242 + 242452402 := \mathbf{446706644}
\end{aligned}$$

$$\begin{aligned}
20211 \times 10122 + 22101 \times 11202 &= 204575742 + 247575402 := \mathbf{452151144} \\
20111 \times 11012 + 21011 \times 11102 &= 221462332 + 233264122 := \mathbf{454726454} \\
21201 \times 11022 + 22011 \times 10212 &= 233677422 + 224776332 := \mathbf{458453754} \\
20112 \times 12201 + 10221 \times 21102 &= 245386512 + 215683542 := \mathbf{461070054} \\
20121 \times 10212 + 21201 \times 12102 &= 205475652 + 256574502 := \mathbf{462050154} \\
21011 \times 11012 + 21011 \times 11012 &= 231373132 + 231373132 := \mathbf{462746264} \\
20112 \times 10221 + 12201 \times 21102 &= 205564752 + 257465502 := \mathbf{463030254} \\
20021 \times 10022 + 22001 \times 12002 &= 200650462 + 264056002 := \mathbf{464706464} \\
22011 \times 10122 + 22101 \times 11022 &= 222795342 + 243597222 := \mathbf{466392564} \\
21111 \times 11112 + 21111 \times 11112 &= 234585432 + 234585432 := \mathbf{469170864} \\
20211 \times 11022 + 22011 \times 11202 &= 222765642 + 246567222 := \mathbf{469332864} \\
21021 \times 10212 + 21201 \times 12012 &= 214666452 + 254666412 := \mathbf{469332864} \\
20121 \times 11202 + 20211 \times 12102 &= 225395442 + 244593522 := \mathbf{469988964} \\
20031 \times 10302 + 20301 \times 13002 &= 206359362 + 263953602 := \mathbf{470312964} \\
20121 \times 10122 + 22101 \times 12102 &= 203664762 + 267466302 := \mathbf{471131064} \\
21012 \times 10221 + 12201 \times 21012 &= 214763652 + 256367412 := \mathbf{471131064} \\
20211 \times 12012 + 21021 \times 11202 &= 242774532 + 235477242 := \mathbf{478251774} \\
21021 \times 10122 + 22101 \times 12012 &= 212774562 + 265477212 := \mathbf{478251774} \\
20021 \times 12002 + 20021 \times 12002 &= 240292042 + 240292042 := \mathbf{480584084} \\
20121 \times 11022 + 22011 \times 12102 &= 221773662 + 266377122 := \mathbf{488150784} \\
21112 \times 11221 + 12211 \times 21112 &= 236897752 + 257798632 := \mathbf{494696384} \\
20112 \times 12021 + 12021 \times 21102 &= 241766352 + 253667142 := \mathbf{495433494} \\
20121 \times 12012 + 21021 \times 12102 &= 241693452 + 254396142 := \mathbf{496089594} \\
21021 \times 11022 + 22011 \times 12012 &= 231693462 + 264396132 := \mathbf{496089594} \\
20031 \times 10032 + 23001 \times 13002 &= 200950992 + 299059002 := \mathbf{500009994} \\
11003 \times 10031 + 13001 \times 30011 &= 110371093 + 390173011 := \mathbf{500544104} \\
21012 \times 12021 + 12021 \times 21012 &= 252585252 + 252585252 := \mathbf{505170504} \\
11103 \times 10131 + 13101 \times 30111 &= 112484493 + 394484211 := \mathbf{506968704} \\
21112 \times 12121 + 12121 \times 21112 &= 255898552 + 255898552 := \mathbf{511797104} \\
11103 \times 11031 + 13011 \times 30111 &= 122477193 + 391774221 := \mathbf{514251414} \\
11002 \times 10012 + 21001 \times 20011 &= 110152024 + 420251011 := \mathbf{530403035} \\
20301 \times 10023 + 32001 \times 10302 &= 203476923 + 329674302 := \mathbf{533151225} \\
11102 \times 10112 + 21101 \times 20111 &= 112263424 + 424362211 := \mathbf{536625635} \\
23001 \times 10203 + 30201 \times 10032 &= 234679203 + 302976432 := \mathbf{537655635} \\
13002 \times 10302 + 20301 \times 20031 &= 133946604 + 406649331 := \mathbf{540595935} \\
12102 \times 11202 + 20211 \times 20121 &= 135566604 + 406665531 := \mathbf{542232135} \\
11202 \times 10212 + 21201 \times 20211 &= 114394824 + 428493411 := \mathbf{542888235} \\
11102 \times 11012 + 21011 \times 20111 &= 122255224 + 422552221 := \mathbf{544807445} \\
12102 \times 10212 + 21201 \times 20121 &= 123585624 + 426585321 := \mathbf{550170945} \\
20301 \times 12003 + 30021 \times 10302 &= 243672903 + 309276342 := \mathbf{552949245} \\
11012 \times 10112 + 21101 \times 21011 &= 111353344 + 443353111 := \mathbf{554706455}
\end{aligned}$$

$$\begin{aligned}
12012 \times 11202 + 20211 \times 21021 &= 134558424 + 424855431 := \mathbf{559413855} \\
11202 \times 10122 + 22101 \times 20211 &= 113386644 + 446683311 := \mathbf{560069955} \\
12002 \times 10022 + 22001 \times 20021 &= 120284044 + 440482021 := \mathbf{560766065} \\
12102 \times 10122 + 22101 \times 20121 &= 122496444 + 444694221 := \mathbf{567190665} \\
11202 \times 11022 + 22011 \times 20211 &= 123468444 + 444864321 := \mathbf{568332765} \\
12012 \times 10212 + 21201 \times 21021 &= 122666544 + 445666221 := \mathbf{568332765} \\
12102 \times 12012 + 21021 \times 20121 &= 145369224 + 422963541 := \mathbf{568332765} \\
10302 \times 10032 + 23001 \times 20301 &= 103349664 + 466943301 := \mathbf{570292965} \\
10212 \times 10122 + 22101 \times 21201 &= 103365864 + 468563301 := \mathbf{571929165} \\
21301 \times 12013 + 31021 \times 10312 &= 255888913 + 319888552 := \mathbf{575777465} \\
12102 \times 11022 + 22011 \times 20121 &= 133388244 + 442883331 := \mathbf{576271575} \\
11022 \times 10212 + 21201 \times 22011 &= 112556664 + 466655211 := \mathbf{579211875} \\
12112 \times 11212 + 21211 \times 21121 &= 135799744 + 447997531 := \mathbf{583797275} \\
12012 \times 10122 + 22101 \times 21021 &= 121585464 + 464585121 := \mathbf{586170585} \\
11212 \times 11122 + 22111 \times 21211 &= 124699864 + 468996421 := \mathbf{593696285} \\
12012 \times 11022 + 22011 \times 21021 &= 132396264 + 462693231 := \mathbf{595089495} \\
20031 \times 10203 + 30201 \times 13002 &= 204376293 + 392673402 := \mathbf{597049695} \\
11022 \times 10122 + 22101 \times 22011 &= 111564684 + 486465111 := \mathbf{598029795} \\
20102 \times 10202 + 20201 \times 20102 &= 205080604 + 406080502 := \mathbf{611161106} \\
12022 \times 10222 + 22201 \times 22021 &= 122888884 + 488888221 := \mathbf{611777105} \\
20201 \times 20012 + 21002 \times 10202 &= 404262412 + 214262404 := \mathbf{618524816} \\
20012 \times 10202 + 20201 \times 21002 &= 204162424 + 424261402 := \mathbf{628423826} \\
21102 \times 10212 + 21201 \times 20112 &= 215493624 + 426394512 := \mathbf{641888136} \\
20211 \times 20112 + 21102 \times 11202 &= 406483632 + 236384604 := \mathbf{642868236} \\
20102 \times 10022 + 22001 \times 20102 &= 201462244 + 442264102 := \mathbf{643726346} \\
20102 \times 12002 + 20021 \times 20102 &= 241264204 + 402462142 := \mathbf{643726346} \\
21002 \times 10022 + 22001 \times 20012 &= 210482044 + 440284012 := \mathbf{650766056} \\
20112 \times 11202 + 20211 \times 21102 &= 225294624 + 426492522 := \mathbf{651787146} \\
20021 \times 20012 + 21002 \times 12002 &= 400660252 + 252066004 := \mathbf{652726256} \\
20112 \times 10212 + 21201 \times 21102 &= 205383744 + 447383502 := \mathbf{652767246} \\
21102 \times 10122 + 22101 \times 20112 &= 213594444 + 444495312 := \mathbf{658089756} \\
20121 \times 20112 + 21102 \times 12102 &= 404673552 + 255376404 := \mathbf{660049956} \\
21012 \times 10212 + 21201 \times 21012 &= 214574544 + 445475412 := \mathbf{660049956} \\
21012 \times 11202 + 20211 \times 21012 &= 235376424 + 424673532 := \mathbf{660049956} \\
20012 \times 12002 + 20021 \times 21002 &= 240184024 + 420481042 := \mathbf{660665066} \\
20012 \times 10022 + 22001 \times 21002 &= 200560264 + 462065002 := \mathbf{662625266} \\
20112 \times 12102 + 20121 \times 21102 &= 243395424 + 424593342 := \mathbf{667988766} \\
20112 \times 10122 + 22101 \times 21102 &= 203573664 + 466375302 := \mathbf{669948966} \\
21102 \times 11022 + 22011 \times 20112 &= 232586244 + 442685232 := \mathbf{675271476} \\
21021 \times 20112 + 21102 \times 12012 &= 422774352 + 253477224 := \mathbf{676251576} \\
20221 \times 20122 + 22102 \times 12202 &= 406886962 + 269688604 := \mathbf{676575566}
\end{aligned}$$

$$\begin{aligned}
21012 \times 10122 + 22101 \times 21012 &= 212683464 + 464386212 := \mathbf{677069676} \\
21012 \times 12102 + 20121 \times 21012 &= 254287224 + 422782452 := \mathbf{677069676} \\
20112 \times 12012 + 21021 \times 21102 &= 241585344 + 443585142 := \mathbf{685170486} \\
20112 \times 11022 + 22011 \times 21102 &= 221674464 + 464476122 := \mathbf{686150586} \\
21012 \times 11022 + 22011 \times 21012 &= 231594264 + 462495132 := \mathbf{694089396} \\
21012 \times 12012 + 21021 \times 21012 &= 252396144 + 441693252 := \mathbf{694089396} \\
21022 \times 10222 + 22201 \times 22012 &= 214886884 + 488688412 := \mathbf{703575296} \\
20212 \times 12022 + 22021 \times 21202 &= 242988664 + 466889242 := \mathbf{709877906} \\
20301 \times 20013 + 31002 \times 10302 &= 406283913 + 319382604 := \mathbf{725666517} \\
12003 \times 10302 + 20301 \times 30021 &= 123654906 + 609456321 := \mathbf{733111227} \\
21003 \times 20301 + 10302 \times 30012 &= 426381903 + 309183624 := \mathbf{735565527} \\
13002 \times 10203 + 30201 \times 20031 &= 132659406 + 604956231 := \mathbf{737615637} \\
10302 \times 10023 + 32001 \times 20301 &= 103256946 + 649652301 := \mathbf{752909247} \\
23001 \times 20103 + 30102 \times 10032 &= 462389103 + 301983264 := \mathbf{764372367} \\
21301 \times 21013 + 31012 \times 10312 &= 447597913 + 319795744 := \mathbf{767393657} \\
20103 \times 20031 + 13002 \times 30102 &= 402683193 + 391386204 := \mathbf{794069397} \\
10203 \times 10032 + 23001 \times 30201 &= 102356496 + 694653201 := \mathbf{797009697} \\
20102 \times 20012 + 21002 \times 20102 &= 402281224 + 422182204 := \mathbf{824463428} \\
21003 \times 10302 + 20301 \times 30012 &= 216372906 + 609273612 := \mathbf{825646518} \\
20013 \times 10302 + 20301 \times 31002 &= 206173926 + 629371602 := \mathbf{835545528} \\
21002 \times 20012 + 21002 \times 20012 &= 420292024 + 420292024 := \mathbf{840584048} \\
20012 \times 20012 + 21002 \times 21002 &= 400480144 + 441084004 := \mathbf{841564148} \\
20202 \times 20022 + 22002 \times 20202 &= 404484444 + 444484404 := \mathbf{848968848} \\
20103 \times 13002 + 20031 \times 30102 &= 261379206 + 602973162 := \mathbf{864352368} \\
21012 \times 20112 + 21102 \times 21012 &= 422593344 + 443395224 := \mathbf{865988568} \\
21013 \times 11302 + 20311 \times 31012 &= 237488926 + 629884732 := \mathbf{867373658} \\
20302 \times 20032 + 23002 \times 20302 &= 406689664 + 466986604 := \mathbf{873676268} \\
21022 \times 20212 + 21202 \times 22012 &= 424896664 + 466698424 := \mathbf{891595088} \\
20103 \times 10032 + 23001 \times 30102 &= 201673296 + 692376102 := \mathbf{894049398} \\
11003 \times 10103 + 30101 \times 30011 &= 111163309 + 903361111 := \mathbf{1014524420} \\
12003 \times 10203 + 30201 \times 30021 &= 122466609 + 906664221 := \mathbf{1029130830} \\
10103 \times 10013 + 31001 \times 30101 &= 101161339 + 933161101 := \mathbf{1034322440} \\
11003 \times 10013 + 31001 \times 30011 &= 110173039 + 930371011 := \mathbf{1040544050} \\
13003 \times 10303 + 30301 \times 30031 &= 133969909 + 909969331 := \mathbf{1043939240} \\
12103 \times 11203 + 30211 \times 30121 &= 135589909 + 909985531 := \mathbf{1045575440} \\
11103 \times 10113 + 31101 \times 30111 &= 112284639 + 936482211 := \mathbf{1048766850} \\
11103 \times 11013 + 31011 \times 30111 &= 122277339 + 933772221 := \mathbf{1056049560} \\
10203 \times 10023 + 32001 \times 30201 &= 102264669 + 966462201 := \mathbf{1068726870} \\
11013 \times 10113 + 31101 \times 31011 &= 111374469 + 964473111 := \mathbf{1075847580} \\
12013 \times 10213 + 31201 \times 31021 &= 122688769 + 967886221 := \mathbf{1090574990} \\
10303 \times 10033 + 33001 \times 30301 &= 103369999 + 999963301 := \mathbf{1103333300}
\end{aligned}$$

$$\begin{aligned}
11023 \times 10213 + 31201 \times 32011 &= 112577899 + 998775211 := \mathbf{1111353110} \\
21003 \times 10203 + 30201 \times 30012 &= 214293609 + 906392412 := \mathbf{1120686021} \\
20013 \times 10203 + 30201 \times 31002 &= 204192639 + 936291402 := \mathbf{1140484041} \\
20103 \times 12003 + 30021 \times 30102 &= 241296309 + 903692142 := \mathbf{1144988451} \\
21003 \times 12003 + 30021 \times 30012 &= 252099009 + 900990252 := \mathbf{1153089261} \\
20103 \times 10023 + 32001 \times 30102 &= 201492369 + 963294102 := \mathbf{1164786471} \\
20013 \times 10023 + 32001 \times 31002 &= 200590299 + 992095002 := \mathbf{1192685301}
\end{aligned}$$

$$\begin{aligned}
102001 \times 100201 + 102001 \times 100201 &= 10220602201 + 10220602201 := \mathbf{20441204402} \\
102101 \times 101201 + 102101 \times 101201 &= 10332723301 + 10332723301 := \mathbf{20665446602} \\
102101 \times 100211 + 112001 \times 101201 &= 10231643311 + 11334613201 := \mathbf{21566256512} \\
102011 \times 101201 + 102101 \times 110201 &= 10323615211 + 11251632301 := \mathbf{21575247512} \\
112001 \times 100211 + 112001 \times 100211 &= 11223732211 + 11223732211 := \mathbf{22447464422} \\
111101 \times 101111 + 111101 \times 101111 &= 11233533211 + 11233533211 := \mathbf{22467066422} \\
110201 \times 102011 + 110201 \times 102011 &= 11241714211 + 11241714211 := \mathbf{22483428422} \\
102011 \times 100211 + 112001 \times 110201 &= 10222624321 + 12342622201 := \mathbf{22565246522} \\
112101 \times 101211 + 112101 \times 101211 &= 11345854311 + 11345854311 := \mathbf{22691708622} \\
111201 \times 101211 + 112101 \times 102111 &= 11254764411 + 11446745211 := \mathbf{22701509622} \\
111201 \times 102111 + 111201 \times 102111 &= 11354845311 + 11354845311 := \mathbf{22709690622} \\
102201 \times 100221 + 122001 \times 102201 &= 10242686421 + 12468624201 := \mathbf{22711310622} \\
102201 \times 102021 + 120201 \times 102201 &= 10426648221 + 12284662401 := \mathbf{22711310622} \\
102111 \times 101211 + 112101 \times 111201 &= 10334756421 + 12465743301 := \mathbf{22800499722} \\
100311 \times 100311 + 113001 \times 113001 &= 10062296721 + 12769226001 := \mathbf{22831522722} \\
112001 \times 100121 + 121001 \times 100211 &= 11213652121 + 12125631211 := \mathbf{23339283332} \\
103001 \times 100031 + 130001 \times 100301 &= 10303293031 + 13039230301 := \mathbf{23342523332} \\
110201 \times 101021 + 120101 \times 102011 &= 11132615221 + 12251623111 := \mathbf{23384238332} \\
100301 \times 100031 + 130001 \times 103001 &= 10033209331 + 13390233001 := \mathbf{23423442332} \\
102011 \times 101021 + 120101 \times 110201 &= 10305253231 + 13235250301 := \mathbf{23540503532} \\
112101 \times 101121 + 121101 \times 101211 &= 11335765221 + 12256753311 := \mathbf{23592518532} \\
103101 \times 101031 + 130101 \times 101301 &= 10416397131 + 13179361401 := \mathbf{23595758532} \\
111201 \times 101121 + 121101 \times 102111 &= 11244756321 + 12365744211 := \mathbf{23610500532} \\
112011 \times 101211 + 112101 \times 110211 &= 11336745321 + 12354763311 := \mathbf{23691508632} \\
111201 \times 110211 + 112011 \times 102111 &= 12255573411 + 11437555221 := \mathbf{23693128632} \\
110211 \times 102111 + 111201 \times 112011 &= 11253755421 + 12455735211 := \mathbf{23709490632} \\
110211 \times 101211 + 112101 \times 112011 &= 11154565521 + 12556545111 := \mathbf{23711110632} \\
102111 \times 101121 + 121101 \times 111201 &= 10325566431 + 13466552301 := \mathbf{23792118732} \\
101211 \times 101121 + 121101 \times 112101 &= 10234557531 + 13575543201 := \mathbf{23810100732} \\
120001 \times 100021 + 120001 \times 100021 &= 12002620021 + 12002620021 := \mathbf{24005240042} \\
102211 \times 102121 + 121201 \times 112201 &= 10437889531 + 13598873401 := \mathbf{24036762932} \\
102211 \times 101221 + 122101 \times 112201 &= 10345899631 + 13699854301 := \mathbf{24045753932} \\
121001 \times 100121 + 121001 \times 100121 &= 12114741121 + 12114741121 := \mathbf{24229482242}
\end{aligned}$$

$$\begin{aligned}
120101 \times 100121 + 121001 \times 101021 &= 12024632221 + 12223642021 := \mathbf{24248274242} \\
120101 \times 101021 + 120101 \times 101021 &= 12132723121 + 12132723121 := \mathbf{24265446242} \\
111011 \times 110111 + 111011 \times 110111 &= 12223532221 + 12223532221 := \mathbf{24447064442} \\
121101 \times 101121 + 121101 \times 101121 &= 12245854221 + 12245854221 := \mathbf{24491708442} \\
120201 \times 100221 + 122001 \times 102021 &= 12046664421 + 12446664021 := \mathbf{24493328442} \\
120021 \times 102201 + 102201 \times 120021 &= 12266266221 + 12266266221 := \mathbf{24532532442} \\
110301 \times 100131 + 131001 \times 103011 &= 11044549431 + 13494544011 := \mathbf{24539093442} \\
112101 \times 110121 + 121011 \times 101211 &= 12344674221 + 12247644321 := \mathbf{24592318542} \\
111201 \times 110121 + 121011 \times 102111 &= 12245565321 + 12356554221 := \mathbf{24602119542} \\
112101 \times 111021 + 120111 \times 101211 &= 12445565121 + 12156554421 := \mathbf{24602119542} \\
111201 \times 111021 + 120111 \times 102111 &= 12345646221 + 12264654321 := \mathbf{24610300542} \\
112011 \times 101121 + 121101 \times 110211 &= 11326664331 + 13346662311 := \mathbf{24673326642} \\
112011 \times 110211 + 112011 \times 110211 &= 12344844321 + 12344844321 := \mathbf{24689688642} \\
111021 \times 102111 + 111201 \times 120111 &= 11336465331 + 13356463311 := \mathbf{24692928642} \\
110121 \times 102111 + 111201 \times 121011 &= 11244565431 + 13456544211 := \mathbf{24701109642} \\
111021 \times 101211 + 112101 \times 120111 &= 11236546431 + 13464563211 := \mathbf{24701109642} \\
110211 \times 101121 + 121101 \times 112011 &= 11144646531 + 13564644111 := \mathbf{24709290642} \\
110121 \times 101211 + 112101 \times 121011 &= 11145456531 + 13565454111 := \mathbf{24710910642} \\
103011 \times 100131 + 131001 \times 110301 &= 10314594441 + 14449541301 := \mathbf{24764135742} \\
112201 \times 112021 + 120211 \times 102211 &= 12568868221 + 12286886521 := \mathbf{24855754742} \\
102021 \times 102021 + 120201 \times 120201 &= 10408284441 + 14448280401 := \mathbf{24856564842} \\
102021 \times 100221 + 122001 \times 120201 &= 10224646641 + 14664642201 := \mathbf{24889288842} \\
100221 \times 100221 + 122001 \times 122001 &= 10044248841 + 14884244001 := \mathbf{24928492842} \\
112111 \times 111211 + 112111 \times 111211 &= 12467976421 + 12467976421 := \mathbf{24935952842} \\
112021 \times 102211 + 112201 \times 120211 &= 11449778431 + 13487794411 := \mathbf{24937572842} \\
110221 \times 102211 + 112201 \times 122011 &= 11265798631 + 13689756211 := \mathbf{24955554842} \\
102121 \times 101221 + 122101 \times 121201 &= 10336789741 + 14798763301 := \mathbf{25135553042} \\
120011 \times 100121 + 121001 \times 110021 &= 12015621331 + 13312651021 := \mathbf{25328272352} \\
120011 \times 101021 + 120101 \times 110021 &= 12123631231 + 13213632121 := \mathbf{25337263352} \\
110301 \times 110031 + 130011 \times 103011 &= 12136529331 + 13392563121 := \mathbf{25529092452} \\
121011 \times 101121 + 121101 \times 110121 &= 12236753331 + 13335763221 := \mathbf{25572516552} \\
120111 \times 101121 + 121101 \times 111021 &= 12145744431 + 13444754121 := \mathbf{25590498552} \\
120301 \times 100231 + 132001 \times 103021 &= 12057889531 + 13598875021 := \mathbf{25656764552} \\
112011 \times 110121 + 121011 \times 110211 &= 12334763331 + 13336743321 := \mathbf{25671506652} \\
112011 \times 111021 + 120111 \times 110211 &= 12435573231 + 13237553421 := \mathbf{25673126652} \\
111021 \times 110211 + 112011 \times 120111 &= 12235735431 + 13453753221 := \mathbf{25689488652} \\
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110031 \times 100311 + 113001 \times 130011 &= 11037319641 + 14691373011 := \mathbf{25728692652} \\
111021 \times 101121 + 121101 \times 120111 &= 11226554541 + 14545562211 := \mathbf{25772116752} \\
110121 \times 101121 + 121101 \times 121011 &= 11135545641 + 14654553111 := \mathbf{25790098752} \\
121201 \times 110221 + 122011 \times 102121 &= 13358895421 + 12459885331 := \mathbf{25818780752}
\end{aligned}$$

$120211 \times 101221 + 122101 \times 112021 = 12167877631 + 13677876121 := 25845753752$
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$111102 \times 102111 + 111201 \times 201111 = 11344736322 + 22363744311 := 33708480633$
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 $112201 \times 101122 + 221101 \times 102211 = 11345989522 + 22598954311 := 33944943833$
 $123001 \times 113002 + 200311 \times 100321 = 13899359002 + 20095399831 := 33994758833$
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 $102211 \times 102112 + 211201 \times 112201 = 10436969632 + 23696963401 := 34133933033$
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 $120011 \times 101102 + 201101 \times 110021 = 12133352122 + 22125333121 := 34258685243$
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 $122001 \times 100122 + 221001 \times 100221 = 12214984122 + 22148941221 := 34363925343$
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 $121101 \times 110112 + 211011 \times 101121 = 13334673312 + 21337643331 := 34672316643$
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 $111012 \times 102111 + 111201 \times 210111 = 11335546332 + 23364553311 := 34700099643$

$110112 \times 102111 + 111201 \times 211011 = 11243646432 + 23464634211 := 34708280643$
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 $122101 \times 112012 + 210211 \times 101221 = 13676777212 + 21277767631 := 34954544843$
 $121002 \times 120201 + 102021 \times 200121 = 14544561402 + 20416544541 := 34961105943$
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$$\begin{aligned}
120201 \times 110022 + 220011 \times 102021 &= 13224754422 + 22445742231 := \mathbf{35670496653} \\
120111 \times 111102 + 201111 \times 111021 &= 13344572322 + 22327544331 := \mathbf{35672116653} \\
102021 \times 102012 + 210201 \times 120201 &= 10407366252 + 25266370401 := \mathbf{35673736653} \\
110202 \times 100221 + 122001 \times 202011 &= 11044554642 + 24645544011 := \mathbf{35690098653} \\
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102021 \times 100212 + 212001 \times 120201 &= 10223728452 + 25482732201 := \mathbf{35706460653} \\
122011 \times 101212 + 212101 \times 110221 &= 12348977332 + 23377984321 := \mathbf{35726961653} \\
122011 \times 102112 + 211201 \times 110221 &= 12458787232 + 23278785421 := \mathbf{35737572653} \\
111012 \times 110211 + 112011 \times 210111 &= 12234743532 + 23534743221 := \mathbf{35769486753} \\
110211 \times 110112 + 211011 \times 112011 &= 12135553632 + 23635553121 := \mathbf{35771106753} \\
101121 \times 101112 + 211101 \times 121101 &= 10224546552 + 25564542201 := \mathbf{35789088753} \\
112102 \times 102121 + 121201 \times 201211 &= 11447968342 + 24386974411 := \mathbf{35834942753} \\
122101 \times 111022 + 220111 \times 101221 &= 13555897222 + 22279855531 := \mathbf{35835752753} \\
120301 \times 100132 + 231001 \times 103021 &= 12045979732 + 23797954021 := \mathbf{35843933753} \\
122011 \times 111202 + 202111 \times 110221 &= 13567867222 + 22276876531 := \mathbf{35844743753} \\
120201 \times 120012 + 210021 \times 102021 &= 14425562412 + 21426552441 := \mathbf{35852114853} \\
122011 \times 112102 + 201211 \times 110221 &= 13677677122 + 22177677631 := \mathbf{35855354753} \\
102012 \times 100221 + 122001 \times 210201 &= 10223744652 + 25644732201 := \mathbf{35868476853} \\
100221 \times 100212 + 212001 \times 122001 &= 10043346852 + 25864334001 := \mathbf{35907680853} \\
121201 \times 110122 + 221011 \times 102121 &= 13346896522 + 22569864331 := \mathbf{35916760853} \\
120211 \times 101212 + 212101 \times 112021 &= 12166795732 + 23759766121 := \mathbf{35926561853} \\
111202 \times 101221 + 122101 \times 202111 &= 11255977642 + 24677955211 := \mathbf{35933932853} \\
120211 \times 102112 + 211201 \times 112021 &= 12274985632 + 23658947221 := \mathbf{35933932853} \\
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120211 \times 112102 + 201211 \times 112021 &= 13475893522 + 22539857431 := \mathbf{36015750953} \\
111211 \times 111112 + 211111 \times 112111 &= 12356876632 + 23667865321 := \mathbf{36024741953} \\
102121 \times 102112 + 211201 \times 121201 &= 10427779552 + 25597772401 := \mathbf{36025551953} \\
122101 \times 120112 + 211021 \times 101221 &= 14665795312 + 21359756641 := \mathbf{36025551953} \\
111022 \times 102211 + 112201 \times 220111 &= 11347669642 + 24696674311 := \mathbf{36044343953} \\
122101 \times 121012 + 210121 \times 101221 &= 14775686212 + 21268657741 := \mathbf{36044343953} \\
110122 \times 102211 + 112201 \times 221011 &= 11255679742 + 24797655211 := \mathbf{36053334953} \\
121201 \times 120112 + 211021 \times 102121 &= 14557694512 + 21549675541 := \mathbf{36107370053} \\
102112 \times 101221 + 122101 \times 211201 &= 10335878752 + 25787853301 := \mathbf{36123732053} \\
121201 \times 121012 + 210121 \times 102121 &= 14666775412 + 21457766641 := \mathbf{36124542053} \\
101221 \times 101212 + 212101 \times 122101 &= 10244779852 + 25897744201 := \mathbf{36142524053} \\
111002 \times 110021 + 120011 \times 200111 &= 12212551042 + 24015521221 := \mathbf{36228072263} \\
110102 \times 110021 + 120011 \times 201011 &= 12113532142 + 24123531121 := \mathbf{36237063263} \\
120011 \times 110012 + 210011 \times 110021 &= 13202650132 + 23105620231 := \mathbf{36308270363}
\end{aligned}$$

$110012 \times 101021 + 120101 \times 210011 = 11113522252 + 25222531111 := 36336053363$
 $131002 \times 120301 + 103021 \times 200131 = 15759671602 + 20617695751 := 36377367353$
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 $120301 \times 110032 + 230011 \times 103021 = 13236959632 + 23695963231 := 36932922863$
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$$\begin{aligned}
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102121 \times 101122 + 221101 \times 121201 &= 10326679762 + 26797662301 := \mathbf{37124342063} \\
101221 \times 101122 + 221101 \times 122101 &= 10235669962 + 26996653201 := \mathbf{37232323163} \\
110021 \times 110012 + 210011 \times 120011 &= 12103630252 + 25203630121 := \mathbf{37307260373} \\
120021 \times 100212 + 212001 \times 120021 &= 12027544452 + 25444572021 := \mathbf{37472116473} \\
120021 \times 102012 + 210201 \times 120021 &= 12243582252 + 25228534221 := \mathbf{37472116473} \\
120021 \times 110202 + 202011 \times 120021 &= 13226554242 + 24245562231 := \mathbf{37472116473} \\
120021 \times 112002 + 200211 \times 120021 &= 13442592042 + 24029524431 := \mathbf{37472116473} \\
120012 \times 102021 + 120201 \times 210021 &= 12243744252 + 25244734221 := \mathbf{37488478473} \\
111021 \times 111012 + 210111 \times 120111 &= 12324663252 + 25236642321 := \mathbf{37561305573} \\
111021 \times 110112 + 211011 \times 120111 &= 12224744352 + 25344742221 := \mathbf{37569486573} \\
131002 \times 103021 + 120301 \times 200131 &= 13495957042 + 24075959431 := \mathbf{37571916473} \\
111012 \times 110121 + 121011 \times 210111 &= 12224752452 + 25425742221 := \mathbf{37650494673} \\
120012 \times 100221 + 122001 \times 210021 &= 12027722652 + 25622772021 := \mathbf{37650494673} \\
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121021 \times 101212 + 212101 \times 120121 &= 12248777452 + 25477784221 := \mathbf{37726561673} \\
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112021 \times 112012 + 210211 \times 120211 &= 12547696252 + 25269674521 := \mathbf{37817370773} \\
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121012 \times 102121 + 121201 \times 210121 &= 12357866452 + 25466875321 := \mathbf{37824741773} \\
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120112 \times 102121 + 121201 \times 211021 &= 12265957552 + 25575956221 := \mathbf{37841913773} \\
110302 \times 100231 + 132001 \times 203011 &= 11055679762 + 26797655011 := \mathbf{37853334773} \\
110022 \times 100221 + 122001 \times 220011 &= 11026514862 + 26841562011 := \mathbf{37868076873} \\
121102 \times 110221 + 122011 \times 201121 &= 13347983542 + 24538974331 := \mathbf{37886957873} \\
121012 \times 101221 + 122101 \times 210121 &= 12248955652 + 25655984221 := \mathbf{37904939873} \\
112021 \times 101122 + 221101 \times 120211 &= 11327787562 + 26578772311 := \mathbf{37906559873} \\
122011 \times 120112 + 211021 \times 110221 &= 14654985232 + 23258945641 := \mathbf{37913930873} \\
111121 \times 111112 + 211111 \times 121111 &= 12346876552 + 25567864321 := \mathbf{37914740873} \\
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111022 \times 102121 + 121201 \times 220111 &= 11337677662 + 26677673311 := \mathbf{38015350973} \\
110122 \times 102121 + 121201 \times 221011 &= 11245768762 + 26786754211 := \mathbf{38032522973} \\
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\end{aligned}$$

$103012 \times 100231 + 132001 \times 210301 = 10324995772 + 27759942301 := \mathbf{38084938073}$
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 $121021 \times 121012 + 210121 \times 120121 = 14644993252 + 25239944641 := \mathbf{39884937893}$
 $120121 \times 120112 + 211021 \times 121021 = 14427973552 + 25537972441 := \mathbf{39965945993}$
 $120121 \times 110122 + 221011 \times 121021 = 13227964762 + 26746972231 := \mathbf{39974936993}$
 $102031 \times 101032 + 230101 \times 130201 = 10308395992 + 29959380301 := \mathbf{40267776293}$
 $103001 \times 100103 + 301001 \times 100301 = 10310709103 + 30190701301 := \mathbf{40501410404}$
 $101003 \times 100301 + 103001 \times 300101 = 10130701903 + 30910703101 := \mathbf{41041405004}$
 $130102 \times 130021 + 120031 \times 201031 = 16915992142 + 24129951961 := \mathbf{41045944103}$
 $110032 \times 102031 + 130201 \times 230011 = 11226674992 + 29947662211 := \mathbf{41174337203}$
 $110003 \times 103001 + 100301 \times 300011 = 11330419003 + 30091403311 := \mathbf{41421822314}$
 $110103 \times 103101 + 101301 \times 301011 = 11351729403 + 30492715311 := \mathbf{41844444714}$
 $120031 \times 101032 + 230101 \times 130021 = 12126971992 + 29917962121 := \mathbf{42044934113}$
 $111003 \times 101301 + 103101 \times 300111 = 11244714903 + 30941744211 := \mathbf{42186459114}$

$$\begin{aligned}
101301 \times 101013 + 310101 \times 103101 &= 10232717913 + 31971723201 := \mathbf{42204441114} \\
113001 \times 100113 + 311001 \times 100311 &= 11312869113 + 31196821311 := \mathbf{42509690424} \\
113001 \times 110103 + 301011 \times 100311 &= 12441749103 + 30194714421 := \mathbf{42636463524} \\
110301 \times 101013 + 310101 \times 103011 &= 11141834913 + 31943814111 := \mathbf{43085649024} \\
110013 \times 101301 + 103101 \times 310011 &= 11144426913 + 31962444111 := \mathbf{43106871024} \\
130001 \times 100103 + 301001 \times 100031 &= 13013490103 + 30109431031 := \mathbf{43122921134} \\
111003 \times 110301 + 103011 \times 300111 &= 12243741903 + 30914734221 := \mathbf{43158476124} \\
120103 \times 103201 + 102301 \times 301021 &= 12394749703 + 30794749321 := \mathbf{43189499024} \\
121003 \times 102301 + 103201 \times 300121 &= 12378727903 + 30972787321 := \mathbf{43351515224} \\
131001 \times 101103 + 301101 \times 100131 &= 13244594103 + 30149544231 := \mathbf{43394138334} \\
113001 \times 110013 + 310011 \times 100311 &= 12431579013 + 31097513421 := \mathbf{43529092434} \\
132001 \times 101203 + 302101 \times 100231 &= 13358897203 + 30279885331 := \mathbf{43638782534} \\
132001 \times 102103 + 301201 \times 100231 &= 13477698103 + 30189677431 := \mathbf{43667375534} \\
130001 \times 100013 + 310001 \times 100031 &= 13001790013 + 31009710031 := \mathbf{44011500044} \\
110301 \times 110013 + 310011 \times 103011 &= 12134543913 + 31934543121 := \mathbf{44069087034} \\
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130101 \times 101013 + 310101 \times 101031 &= 13141892313 + 31329814131 := \mathbf{44471706444} \\
123001 \times 120103 + 301021 \times 100321 &= 14772789103 + 30198727741 := \mathbf{44971516844} \\
111003 \times 100311 + 113001 \times 300111 &= 11134821933 + 33912843111 := \mathbf{45047665044} \\
121003 \times 120301 + 103021 \times 300121 &= 14556781903 + 30918765541 := \mathbf{45475547444} \\
110013 \times 103011 + 110301 \times 310011 &= 11332549143 + 34194523311 := \mathbf{45527072454} \\
120301 \times 110023 + 320011 \times 103021 &= 13235876923 + 32967853231 := \mathbf{46203730154} \\
120301 \times 120013 + 310021 \times 103021 &= 14437683913 + 31938673441 := \mathbf{46376357354} \\
121301 \times 121013 + 310121 \times 103121 &= 14678997913 + 31979987641 := \mathbf{46658985554} \\
130011 \times 100113 + 311001 \times 110031 &= 13015791243 + 34219751031 := \mathbf{47235542274} \\
101103 \times 101031 + 130101 \times 301101 &= 10214537193 + 39173541201 := \mathbf{49388078394} \\
101103 \times 100131 + 131001 \times 301101 &= 10123544493 + 39444532101 := \mathbf{49568076594} \\
120013 \times 103021 + 120301 \times 310021 &= 12363859273 + 37295836321 := \mathbf{49659695594} \\
110023 \times 103021 + 120301 \times 320011 &= 11334679483 + 38497643311 := \mathbf{49832322794} \\
102103 \times 100231 + 132001 \times 301201 &= 10233885793 + 39758833201 := \mathbf{49992718994} \\
110003 \times 100031 + 130001 \times 300011 &= 11003710093 + 39001730011 := \mathbf{50005440104} \\
101203 \times 100231 + 132001 \times 302101 &= 10143677893 + 39877634101 := \mathbf{50021311994} \\
111003 \times 101031 + 130101 \times 300111 &= 11214744093 + 39044741211 := \mathbf{50259485304} \\
110031 \times 101103 + 301101 \times 130011 &= 11124464193 + 39146442111 := \mathbf{50270906304} \\
110103 \times 101031 + 130101 \times 301011 &= 11123816193 + 39161832111 := \mathbf{50285648304} \\
101002 \times 100102 + 201001 \times 200101 &= 10110502204 + 40220501101 := \mathbf{50331003305} \\
111003 \times 100131 + 131001 \times 300111 &= 11114841393 + 39314841111 := \mathbf{50429682504} \\
110103 \times 100131 + 131001 \times 301011 &= 11024723493 + 39432742011 := \mathbf{50457465504} \\
130021 \times 100213 + 312001 \times 120031 &= 13029794473 + 37449792031 := \mathbf{50479586504} \\
112003 \times 102031 + 130201 \times 300211 &= 11427778093 + 39087772411 := \mathbf{50515550504}
\end{aligned}$$

$102002 \times 100202 + 202001 \times 200201 = 10220804404 + 40440802201 := 50661606605$
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$$\begin{aligned}
101022 \times 100212 + 212001 \times 220101 &= 10123616664 + 46661632101 := \mathbf{56785248765} \\
112102 \times 110122 + 221011 \times 201211 &= 12344896444 + 44469844321 := \mathbf{56814740765} \\
121012 \times 101212 + 212101 \times 210121 &= 12247866544 + 44566874221 := \mathbf{56814740765} \\
111202 \times 111022 + 220111 \times 202111 &= 12345868444 + 44486854321 := \mathbf{56832722765} \\
120112 \times 102112 + 211201 \times 211021 &= 12264876544 + 44567846221 := \mathbf{56832722765} \\
120202 \times 100222 + 222001 \times 202021 &= 12046884844 + 44848864021 := \mathbf{56895748865} \\
111202 \times 110122 + 221011 \times 202111 &= 12245786644 + 44668754221 := \mathbf{56914540865} \\
120112 \times 101212 + 212101 \times 211021 &= 12156775744 + 44757765121 := \mathbf{56914540865} \\
121102 \times 121012 + 210121 \times 201121 &= 14654795224 + 42259745641 := \mathbf{56914540865} \\
102112 \times 101122 + 221101 \times 211201 &= 10325769664 + 46696752301 := \mathbf{57022521965} \\
101212 \times 101122 + 221101 \times 212101 &= 10234759864 + 46895743201 := \mathbf{57130503065} \\
121002 \times 110022 + 220011 \times 200121 &= 13312882044 + 44028821331 := \mathbf{57341703375} \\
120102 \times 110022 + 220011 \times 201021 &= 13213862244 + 44226831231 := \mathbf{57440693475} \\
110022 \times 102012 + 210201 \times 220011 &= 11223564264 + 46246532211 := \mathbf{57470096475} \\
130012 \times 103012 + 210301 \times 210031 &= 13392796144 + 44169729331 := \mathbf{57562525475} \\
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111022 \times 102112 + 211201 \times 220111 &= 11336678464 + 46487663311 := \mathbf{57824341775} \\
121012 \times 110212 + 212011 \times 210121 &= 13336974544 + 44547963331 := \mathbf{57884937875} \\
110122 \times 102112 + 211201 \times 221011 &= 11244777664 + 46677744211 := \mathbf{57922521875} \\
111022 \times 101212 + 212101 \times 220111 &= 11236758664 + 46685763211 := \mathbf{57922521875} \\
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110212 \times 101122 + 221101 \times 212011 &= 11144857864 + 46875844111 := \mathbf{58020701975} \\
110122 \times 101212 + 212101 \times 221011 &= 11145667864 + 46876654111 := \mathbf{58022321975} \\
120012 \times 101022 + 220101 \times 210021 &= 12123852264 + 46225832121 := \mathbf{58349684385} \\
120012 \times 100122 + 221001 \times 210021 &= 12015841464 + 46414851021 := \mathbf{58430692485} \\
121012 \times 101122 + 221101 \times 210121 &= 12236975464 + 46457963221 := \mathbf{58694938685} \\
112012 \times 111022 + 220111 \times 210211 &= 12435796264 + 46269753421 := \mathbf{58705549685} \\
101022 \times 100122 + 221001 \times 220101 &= 10114524684 + 48642541101 := \mathbf{58757065785} \\
112012 \times 110122 + 221011 \times 210211 &= 12334985464 + 46458943321 := \mathbf{58793928785} \\
120112 \times 101122 + 221101 \times 211021 &= 12145965664 + 46656954121 := \mathbf{58802919785} \\
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121012 \times 120112 + 211021 \times 210121 &= 14534993344 + 44339943541 := \mathbf{58874936885} \\
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103012 \times 100132 + 231001 \times 210301 &= 10314797584 + 48579741301 := \mathbf{58894538885} \\
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\end{aligned}$$

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 $110022 \times 101022 + 220101 \times 220011 = 11114642484 + 48424641111 := 59539283595$
 $110022 \times 100122 + 221001 \times 220011 = 11015622684 + 48622651011 := 59638273695$
 $121012 \times 111022 + 220111 \times 210121 = 13434994264 + 46249943431 := 59684937695$
 $120112 \times 110122 + 221011 \times 211021 = 13226973664 + 46637962231 := 59864935895$
 $111022 \times 101122 + 221101 \times 220111 = 11226766684 + 48666762211 := 59893528895$
 $110122 \times 101122 + 221101 \times 221011 = 11135756884 + 48865753111 := 60001509995$
 $110032 \times 100312 + 213001 \times 230011 = 11037529984 + 48992573011 := 60030102995$
 $120022 \times 102022 + 220201 \times 220021 = 12244884484 + 48448844221 := 60693728705$
 $111022 \times 110122 + 221011 \times 220111 = 12225964684 + 48646952221 := 60872916905$
 $120022 \times 100222 + 222001 \times 220021 = 12028844884 + 48844882021 := 60873726905$
 $120003 \times 103002 + 200301 \times 300021 = 12360549006 + 60094506321 := 72455055327$
 $120003 \times 100302 + 203001 \times 300021 = 12036540906 + 60904563021 := 72941103927$
 $120103 \times 103102 + 201301 \times 301021 = 12382859506 + 60595828321 := 72978687827$
 $121003 \times 101302 + 203101 \times 300121 = 12257845906 + 60954875221 := 73212721127$
 $130002 \times 102003 + 300201 \times 200031 = 13260594006 + 60049506231 := 73310100237$
 $130002 \times 100203 + 302001 \times 200031 = 13026590406 + 60409562031 := 73436152437$
 $131002 \times 102103 + 301201 \times 200131 = 13375697206 + 60279657331 := 73655354537$
 $131002 \times 101203 + 302101 \times 200131 = 13257795406 + 60459775231 := 73717570637$
 $120103 \times 113002 + 200311 \times 301021 = 13571879206 + 60297817531 := 73869696737$
 $121003 \times 110302 + 203011 \times 300121 = 13346872906 + 60927864331 := 74274737237$
 $103002 \times 100023 + 320001 \times 200301 = 10302569046 + 64096520301 := 74399089347$
 $100302 \times 100023 + 320001 \times 203001 = 10032506946 + 64960523001 := 74993029947$
 $120013 \times 101302 + 203101 \times 310021 = 12157556926 + 62965575121 := 75123132047$
 $110023 \times 101302 + 203101 \times 320011 = 11145549946 + 64994554111 := 76140104057$
 $120013 \times 110302 + 203011 \times 310021 = 13237673926 + 62937673231 := 76175347157$
 $121013 \times 111302 + 203111 \times 310121 = 13468988926 + 62988986431 := 76457975357$
 $110302 \times 110023 + 320011 \times 203011 = 12135756946 + 64965753121 := 77101510067$
 $120013 \times 103012 + 210301 \times 310021 = 12362779156 + 65197726321 := 77560505477$
 $130012 \times 100213 + 312001 \times 210031 = 13028892556 + 65529882031 := 78558774587$
 $110023 \times 103012 + 210301 \times 320011 = 11333689276 + 67298633311 := 78632322587$
 $102003 \times 100032 + 230001 \times 300201 = 10203564096 + 69046530201 := 79250094297$
 $100203 \times 100032 + 230001 \times 302001 = 10023506496 + 69460532001 := 79484038497$
 $102103 \times 100132 + 231001 \times 301201 = 10223777596 + 69577732201 := 79801509797$
 $101203 \times 100132 + 231001 \times 302101 = 10133658796 + 69785633101 := 79919291897$
 $112003 \times 101032 + 230101 \times 300211 = 11315887096 + 69078851311 := 80394738407$
 $110032 \times 102103 + 301201 \times 230011 = 11234597296 + 69279543211 := 80514140507$
 $110032 \times 101203 + 302101 \times 230011 = 11135568496 + 69486553111 := 80622121607$

$110203 \times 100132 + 231001 \times 302011 = 11034846796 + 69764843011 := 80799689807$
 $110203 \times 110032 + 230011 \times 302011 = 12125856496 + 69465852121 := 81591708617$
 $101003 \times 100103 + 301001 \times 300101 = 10110703309 + 90330701101 := 100441404410$
 $110003 \times 101003 + 300101 \times 300011 = 11110633009 + 90033601111 := 101144234120$
 $110003 \times 100103 + 301001 \times 300011 = 11011630309 + 90303611011 := 101315241320$
 $111003 \times 101103 + 301101 \times 300111 = 11222736309 + 90363722211 := 101586458520$
 $110103 \times 101103 + 301101 \times 301011 = 11131743609 + 90634713111 := 101766456720$
 $120003 \times 102003 + 300201 \times 300021 = 12240666009 + 90066604221 := 102307270230$
 $111003 \times 110103 + 301011 \times 300111 = 12221763309 + 90336712221 := 102558475530$
 $120003 \times 100203 + 302001 \times 300021 = 12024660609 + 90606642021 := 102631302630$
 $121003 \times 102103 + 301201 \times 300121 = 12354769309 + 90396745321 := 102751514630$
 $121003 \times 101203 + 302101 \times 300121 = 12245866609 + 90666854221 := 102912720830$
 $120103 \times 102103 + 301201 \times 301021 = 12262876609 + 90667826221 := 102930702830$
 $120103 \times 101203 + 302101 \times 301021 = 12154783909 + 90938745121 := 103093529030$
 $101003 \times 100013 + 310001 \times 300101 = 10101613039 + 93031610101 := 103133223140$
 $100103 \times 100013 + 310001 \times 301001 = 10011601339 + 93310611001 := 103322212340$
 $130003 \times 103003 + 300301 \times 300031 = 13390699009 + 90099609331 := 103490308340$
 $101103 \times 101013 + 310101 \times 301101 = 10212717339 + 93371721201 := 103584438540$
 $121003 \times 112003 + 300211 \times 300121 = 13552699009 + 90099625531 := 103652324540$
 $101103 \times 100113 + 311001 \times 301101 = 10121724639 + 93642712101 := 103764436740$
 $120103 \times 112003 + 300211 \times 301021 = 13451896309 + 90369815431 := 103821711740$
 $130003 \times 100303 + 303001 \times 300031 = 13039690909 + 90909693031 := 103949383940$
 $121003 \times 110203 + 302011 \times 300121 = 13334893609 + 90639843331 := 103974736940$
 $110003 \times 100013 + 310001 \times 300011 = 11001730039 + 93003710011 := 104005440050$
 $111003 \times 101013 + 310101 \times 300111 = 11212746039 + 93064721211 := 104277467250$
 $111003 \times 100113 + 311001 \times 300111 = 11112843339 + 93334821111 := 104447664450$
 $110103 \times 101013 + 310101 \times 301011 = 11121834339 + 93343812111 := 104465646450$
 $110013 \times 101103 + 301101 \times 310011 = 11122644339 + 93344622111 := 104467266450$
 $110103 \times 100113 + 311001 \times 301011 = 11022741639 + 93614722011 := 104637463650$
 $111103 \times 101113 + 311101 \times 301111 = 11233957639 + 93675933211 := 104909890850$
 $111003 \times 110013 + 310011 \times 300111 = 12211773039 + 93037711221 := 105249484260$
 $110103 \times 110013 + 310011 \times 301011 = 12112761339 + 93316721121 := 105429482460$
 $121003 \times 102013 + 310201 \times 300121 = 12343879039 + 93097834321 := 105441713360$
 $120013 \times 102103 + 301201 \times 310021 = 12253687339 + 93378635221 := 105632322560$
 $111103 \times 111013 + 310111 \times 301111 = 12333877339 + 93377833321 := 105711710660$
 $120013 \times 101203 + 302101 \times 310021 = 12145675639 + 93657654121 := 105803329760$
 $111103 \times 110113 + 311011 \times 301111 = 12233884639 + 93648833221 := 105882717860$
 $120103 \times 100213 + 312001 \times 301021 = 12035881939 + 93918853021 := 105954734960$
 $102003 \times 100023 + 320001 \times 300201 = 10202646069 + 96064620201 := 106267266270$
 $101013 \times 100113 + 311001 \times 310101 = 10112714469 + 96441721101 := 106554435570$
 $100203 \times 100023 + 320001 \times 302001 = 10022604669 + 96640622001 := 106663226670$

$$\begin{aligned}
120013 \times 110203 + 302011 \times 310021 &= 13225792639 + 93629752231 := \mathbf{106855544870} \\
102103 \times 100123 + 321001 \times 301201 &= 10222858669 + 96685822201 := \mathbf{106908680870} \\
101203 \times 100123 + 321001 \times 302101 &= 10132747969 + 96974723101 := \mathbf{107107471070} \\
110013 \times 101013 + 310101 \times 310011 &= 11112743169 + 96134721111 := \mathbf{107247464280} \\
112003 \times 101023 + 320101 \times 300211 &= 11314879069 + 96097841311 := \mathbf{107412720380} \\
110013 \times 100113 + 311001 \times 310011 &= 11013731469 + 96413731011 := \mathbf{107427462480} \\
110023 \times 102103 + 301201 \times 320011 &= 11233678369 + 96387633211 := \mathbf{107621311580} \\
111013 \times 101113 + 311101 \times 310111 &= 11224857469 + 96475842211 := \mathbf{107700699680} \\
110023 \times 101203 + 302101 \times 320011 &= 11134657669 + 96675643111 := \mathbf{107810300780} \\
110113 \times 101113 + 311101 \times 311011 &= 11133855769 + 96755833111 := \mathbf{107889688880} \\
110203 \times 100123 + 321001 \times 302011 &= 11033854969 + 96945833011 := \mathbf{107979687980} \\
120013 \times 102013 + 310201 \times 310021 &= 12242886169 + 96168824221 := \mathbf{108411710390} \\
111013 \times 110113 + 311011 \times 310111 &= 12223974469 + 96447932221 := \mathbf{108671906690} \\
120013 \times 100213 + 312001 \times 310021 &= 12026862769 + 96726862021 := \mathbf{108753724790} \\
110203 \times 110023 + 320011 \times 302011 &= 12124864669 + 96646842121 := \mathbf{108771706790} \\
103003 \times 100033 + 330001 \times 300301 &= 10303699099 + 99099630301 := \mathbf{109403329400} \\
102013 \times 101023 + 320101 \times 310201 &= 10305659299 + 99295650301 := \mathbf{109601309600} \\
102013 \times 100123 + 321001 \times 310201 &= 10213847599 + 99574831201 := \mathbf{109788678800} \\
101023 \times 100213 + 312001 \times 320101 &= 10123817899 + 99871832101 := \mathbf{109995650000} \\
100303 \times 100033 + 330001 \times 303001 &= 10033609999 + 99990633001 := \mathbf{110024243000} \\
110023 \times 102013 + 310201 \times 320011 &= 11223776299 + 99267732211 := \mathbf{110491508510} \\
110023 \times 100213 + 312001 \times 320011 &= 11025734899 + 99843752011 := \mathbf{110869486910} \\
110123 \times 102113 + 311201 \times 321011 &= 11244989899 + 99898944211 := \mathbf{111143934110} \\
110303 \times 110033 + 330011 \times 303011 &= 12136969999 + 99996963121 := \mathbf{112133933120}
\end{aligned}$$

7 Palindromic Multiplicative Factors

This section brings the **palindromic-type expressions** where each multiplicative factor is a palindrome. It is not necessary that final sum becomes always a palindrome. This we have divided in two subsections. One when final sum is palindrome and another when final sum is not a palindrome.

7.1 Palindromic Sum

Below are numbers, where each multiplicative factor as well as final sum as palindromes. The work is maximum up to five digits internal and external products.

7.1.1 2-Digits Internal Product

$$\begin{array}{ll}
11 \times 11 + 11 \times 11 = 121 + 121 := \mathbf{242} & 131 \times 11 + 11 \times 131 = 1441 + 1441 := \mathbf{2882} \\
22 \times 11 + 11 \times 22 = 242 + 242 := \mathbf{484} & 101 \times 22 + 22 \times 101 = 2222 + 2222 := \mathbf{4444} \\
101 \times 11 + 11 \times 101 = 1111 + 1111 := \mathbf{2222} & 202 \times 11 + 11 \times 202 = 2222 + 2222 := \mathbf{4444} \\
111 \times 11 + 11 \times 111 = 1221 + 1221 := \mathbf{2442} & 212 \times 11 + 11 \times 212 = 2332 + 2332 := \mathbf{4664} \\
121 \times 11 + 11 \times 121 = 1331 + 1331 := \mathbf{2662} & 111 \times 22 + 22 \times 111 = 2442 + 2442 := \mathbf{4884}
\end{array}$$

$$222 \times 11 + 11 \times 222 = 2442 + 2442 := \mathbf{4884}$$

$$101 \times 33 + 33 \times 101 = 3333 + 3333 := \mathbf{6666}$$

$$303 \times 11 + 11 \times 303 = 3333 + 3333 := \mathbf{6666}$$

$$313 \times 11 + 11 \times 313 = 3443 + 3443 := \mathbf{6886}$$

$$101 \times 44 + 44 \times 101 = 4444 + 4444 := \mathbf{8888}$$

$$202 \times 22 + 22 \times 202 = 4444 + 4444 := \mathbf{8888}$$

$$404 \times 11 + 11 \times 404 = 4444 + 4444 := \mathbf{8888}$$

$$1001 \times 11 + 11 \times 1001 = 11011 + 11011 := \mathbf{22022}$$

$$1111 \times 11 + 11 \times 1111 = 12221 + 12221 := \mathbf{24442}$$

$$1221 \times 11 + 11 \times 1221 = 13431 + 13431 := \mathbf{26862}$$

$$1001 \times 22 + 22 \times 1001 = 22022 + 22022 := \mathbf{44044}$$

$$2002 \times 11 + 11 \times 2002 = 22022 + 22022 := \mathbf{44044}$$

$$2112 \times 11 + 11 \times 2112 = 23232 + 23232 := \mathbf{46464}$$

$$1111 \times 22 + 22 \times 1111 = 24442 + 24442 := \mathbf{48884}$$

$$2222 \times 11 + 11 \times 2222 = 24442 + 24442 := \mathbf{48884}$$

$$1001 \times 33 + 33 \times 1001 = 33033 + 33033 := \mathbf{66066}$$

$$3003 \times 11 + 11 \times 3003 = 33033 + 33033 := \mathbf{66066}$$

$$3113 \times 11 + 11 \times 3113 = 34243 + 34243 := \mathbf{68486}$$

$$1001 \times 44 + 44 \times 1001 = 44044 + 44044 := \mathbf{88088}$$

$$2002 \times 22 + 22 \times 2002 = 44044 + 44044 := \mathbf{88088}$$

$$4004 \times 11 + 11 \times 4004 = 44044 + 44044 := \mathbf{88088}$$

$$10001 \times 11 + 11 \times 10001 = 110011 + 110011 := \mathbf{220022}$$

$$10101 \times 11 + 11 \times 10101 = 111111 + 111111 := \mathbf{222222}$$

$$10201 \times 11 + 11 \times 10201 = 112211 + 112211 := \mathbf{224422}$$

$$10301 \times 11 + 11 \times 10301 = 113311 + 113311 := \mathbf{226622}$$

$$10401 \times 11 + 11 \times 10401 = 114411 + 114411 := \mathbf{228822}$$

$$11011 \times 11 + 11 \times 11011 = 121121 + 121121 := \mathbf{242242}$$

$$11111 \times 11 + 11 \times 11111 = 122221 + 122221 := \mathbf{244442}$$

$$11211 \times 11 + 11 \times 11211 = 123321 + 123321 := \mathbf{246642}$$

$$11311 \times 11 + 11 \times 11311 = 124421 + 124421 := \mathbf{248842}$$

$$12021 \times 11 + 11 \times 12021 = 132231 + 132231 := \mathbf{264462}$$

$$12121 \times 11 + 11 \times 12121 = 133331 + 133331 := \mathbf{266662}$$

$$12221 \times 11 + 11 \times 12221 = 134431 + 134431 := \mathbf{268862}$$

$$13031 \times 11 + 11 \times 13031 = 143341 + 143341 := \mathbf{286682}$$

$$13131 \times 11 + 11 \times 13131 = 144441 + 144441 := \mathbf{288882}$$

$$10001 \times 22 + 22 \times 10001 = 220022 + 220022 := \mathbf{440044}$$

$$20002 \times 11 + 11 \times 20002 = 220022 + 220022 := \mathbf{440044}$$

$$20102 \times 11 + 11 \times 20102 = 221122 + 221122 := \mathbf{442244}$$

$$10101 \times 22 + 22 \times 10101 = 222222 + 222222 := \mathbf{444444}$$

$$20202 \times 11 + 11 \times 20202 = 222222 + 222222 := \mathbf{444444}$$

$$20302 \times 11 + 11 \times 20302 = 223322 + 223322 := \mathbf{446644}$$

$$10201 \times 22 + 22 \times 10201 = 224422 + 224422 := \mathbf{448844}$$

$$20402 \times 11 + 11 \times 20402 = 224422 + 224422 := \mathbf{448844}$$

$$21012 \times 11 + 11 \times 21012 = 231132 + 231132 := \mathbf{462264}$$

$$21112 \times 11 + 11 \times 21112 = 232232 + 232232 := \mathbf{464464}$$

$$21212 \times 11 + 11 \times 21212 = 233332 + 233332 := \mathbf{466664}$$

$$21312 \times 11 + 11 \times 21312 = 234432 + 234432 := \mathbf{468864}$$

$$11011 \times 22 + 22 \times 11011 = 242242 + 242242 := \mathbf{484484}$$

$$22022 \times 11 + 11 \times 22022 = 242242 + 242242 := \mathbf{484484}$$

$$22122 \times 11 + 11 \times 22122 = 243342 + 243342 := \mathbf{486684}$$

$$11111 \times 22 + 22 \times 11111 = 244442 + 244442 := \mathbf{488884}$$

$$22222 \times 11 + 11 \times 22222 = 244442 + 244442 := \mathbf{488884}$$

$$10001 \times 33 + 33 \times 10001 = 330033 + 330033 := \mathbf{660066}$$

$$30003 \times 11 + 11 \times 30003 = 330033 + 330033 := \mathbf{660066}$$

$$30103 \times 11 + 11 \times 30103 = 331133 + 331133 := \mathbf{662266}$$

$$30203 \times 11 + 11 \times 30203 = 332233 + 332233 := \mathbf{664466}$$

$$10101 \times 33 + 33 \times 10101 = 333333 + 333333 := \mathbf{666666}$$

$$30303 \times 11 + 11 \times 30303 = 333333 + 333333 := \mathbf{666666}$$

$$30403 \times 11 + 11 \times 30403 = 334433 + 334433 := \mathbf{668866}$$

$$31013 \times 11 + 11 \times 31013 = 341143 + 341143 := \mathbf{682286}$$

$$31113 \times 11 + 11 \times 31113 = 342243 + 342243 := \mathbf{684486}$$

$$31213 \times 11 + 11 \times 31213 = 343343 + 343343 := \mathbf{686686}$$

$$31313 \times 11 + 11 \times 31313 = 344443 + 344443 := \mathbf{688886}$$

$$10001 \times 44 + 44 \times 10001 = 440044 + 440044 := \mathbf{880088}$$

$$20002 \times 22 + 22 \times 20002 = 440044 + 440044 := \mathbf{880088}$$

$$40004 \times 11 + 11 \times 40004 = 440044 + 440044 := \mathbf{880088}$$

$$40104 \times 11 + 11 \times 40104 = 441144 + 441144 := \mathbf{882288}$$

$$20102 \times 22 + 22 \times 20102 = 442244 + 442244 := \mathbf{884488}$$

$$40204 \times 11 + 11 \times 40204 = 442244 + 442244 := \mathbf{884488}$$

$$40304 \times 11 + 11 \times 40304 = 443344 + 443344 := \mathbf{886688}$$

$$10101 \times 44 + 44 \times 10101 = 444444 + 444444 := \mathbf{888888}$$

$$20202 \times 22 + 22 \times 20202 = 444444 + 444444 := \mathbf{888888}$$

$$40404 \times 11 + 11 \times 40404 = 444444 + 444444 := \mathbf{888888}$$

$$101 \times 101 + 101 \times 101 = 10201 + 10201 := \mathbf{20402}$$

$$111 \times 101 + 101 \times 111 = 11211 + 11211 := \mathbf{22422}$$

$$121 \times 101 + 101 \times 121 = 12221 + 12221 := \mathbf{24442}$$

$$111 \times 111 + 111 \times 111 = 12321 + 12321 := \mathbf{24642}$$

$$131 \times 101 + 101 \times 131 = 13231 + 13231 := \mathbf{26462}$$

$$121 \times 111 + 111 \times 121 = 13431 + 13431 := \mathbf{26862}$$

$$141 \times 101 + 101 \times 141 = 14241 + 14241 := \mathbf{28482}$$

$$202 \times 101 + 101 \times 202 = 20402 + 20402 := \mathbf{40804}$$

$$212 \times 101 + 101 \times 212 = 21412 + 21412 := \mathbf{42824}$$

$$202 \times 111 + 111 \times 202 = 22422 + 22422 := \mathbf{44844}$$

$$222 \times 101 + 101 \times 222 = 22422 + 22422 := \mathbf{44844}$$

$$232 \times 101 + 101 \times 232 = 23432 + 23432 := \mathbf{46864}$$

$$202 \times 121 + 121 \times 202 = 24442 + 24442 := \mathbf{48884}$$

$$242 \times 101 + 101 \times 242 = 24442 + 24442 := \mathbf{48884}$$

7.1.2 3-Digits Internal Product

$$1001 \times 101 + 101 \times 1001 = 101101 + 101101 := \mathbf{202202}$$

$$1001 \times 111 + 111 \times 1001 = 111111 + 111111 := \mathbf{222222}$$

$$1001 \times 121 + 121 \times 1001 = 121121 + 121121 := \mathbf{242242}$$

$$1001 \times 131 + 131 \times 1001 = 131131 + 131131 := \mathbf{262262}$$

$$1001 \times 141 + 141 \times 1001 = 141141 + 141141 := \mathbf{282282}$$

$$1001 \times 202 + 202 \times 1001 = 202202 + 202202 := \mathbf{404404}$$

$$1001 \times 212 + 212 \times 1001 = 212212 + 212212 := \mathbf{424424}$$

$$1001 \times 222 + 222 \times 1001 = 222222 + 222222 := \mathbf{444444}$$

$$1001 \times 232 + 232 \times 1001 = 232232 + 232232 := \mathbf{464464}$$

$$1001 \times 242 + 242 \times 1001 = 242242 + 242242 := \mathbf{484484}$$

$$1001 \times 303 + 303 \times 1001 = 303303 + 303303 := \mathbf{606606}$$

$$1001 \times 313 + 313 \times 1001 = 313313 + 313313 := \mathbf{626626}$$

$$1001 \times 323 + 323 \times 1001 = 323323 + 323323 := \mathbf{646646}$$

$$1001 \times 333 + 333 \times 1001 = 333333 + 333333 := \mathbf{666666}$$

$$1001 \times 343 + 343 \times 1001 = 343343 + 343343 := \mathbf{686686}$$

$$1001 \times 404 + 404 \times 1001 = 404404 + 404404 := \mathbf{808808}$$

$$1001 \times 414 + 414 \times 1001 = 414414 + 414414 := \mathbf{828828}$$

$$1001 \times 424 + 424 \times 1001 = 424424 + 424424 := \mathbf{848848}$$

$$1001 \times 434 + 434 \times 1001 = 434434 + 434434 := \mathbf{868868}$$

$$1001 \times 444 + 444 \times 1001 = 444444 + 444444 := \mathbf{888888}$$

$$1111 \times 101 + 101 \times 1111 = 112211 + 112211 := \mathbf{224422}$$

$$1111 \times 111 + 111 \times 1111 = 123321 + 123321 := \mathbf{246642}$$

$$1221 \times 101 + 101 \times 1221 = 123321 + 123321 := \mathbf{246642}$$

$$1111 \times 121 + 121 \times 1111 = 134431 + 134431 := \mathbf{268862}$$

$$1331 \times 101 + 101 \times 1331 = 134431 + 134431 := \mathbf{268862}$$

$$2002 \times 101 + 101 \times 2002 = 202202 + 202202 := \mathbf{404404}$$

$$2112 \times 101 + 101 \times 2112 = 213312 + 213312 := \mathbf{426624}$$

$$2002 \times 111 + 111 \times 2002 = 222222 + 222222 := \mathbf{444444}$$

$$1111 \times 202 + 202 \times 1111 = 224422 + 224422 := \mathbf{448844}$$

$$2222 \times 101 + 101 \times 2222 = 224422 + 224422 := \mathbf{448844}$$

$$2112 \times 111 + 111 \times 2112 = 234432 + 234432 := \mathbf{468864}$$

$$2002 \times 121 + 121 \times 2002 = 242242 + 242242 := \mathbf{484484}$$

$$3003 \times 101 + 101 \times 3003 = 303303 + 303303 := \mathbf{606606}$$

$$3113 \times 101 + 101 \times 3113 = 314413 + 314413 := \mathbf{628826}$$

$$3003 \times 111 + 111 \times 3003 = 333333 + 333333 := \mathbf{666666}$$

$$2002 \times 202 + 202 \times 2002 = 404404 + 404404 := \mathbf{808808}$$

$$4004 \times 101 + 101 \times 4004 = 404404 + 404404 := \mathbf{808808}$$

$$2002 \times 212 + 212 \times 2002 = 424424 + 424424 := \mathbf{848848}$$

$$2002 \times 222 + 222 \times 2002 = 444444 + 444444 := \mathbf{888888}$$

$$4004 \times 111 + 111 \times 4004 = 444444 + 444444 := \mathbf{888888}$$

$$10001 \times 101 + 101 \times 10001 = 1010101 + 1010101 := \mathbf{2020202}$$

$$10101 \times 101 + 101 \times 10101 = 1020201 + 1020201 := \mathbf{2040402}$$

$$10201 \times 101 + 101 \times 10201 = 1030301 + 1030301 := \mathbf{2060602}$$

$$10301 \times 101 + 101 \times 10301 = 1040401 + 1040401 := \mathbf{2080802}$$

$$10001 \times 111 + 111 \times 10001 = 1110111 + 1110111 := \mathbf{2220222}$$

$$11011 \times 101 + 101 \times 11011 = 1112111 + 1112111 := \mathbf{2224222}$$

$$10101 \times 111 + 111 \times 10101 = 1121211 + 1121211 := \mathbf{2242422}$$

$$11111 \times 101 + 101 \times 11111 = 1122211 + 1122211 := \mathbf{2244422}$$

$$10201 \times 111 + 111 \times 10201 = 1132311 + 1132311 := \mathbf{2264622}$$

$$11211 \times 101 + 101 \times 11211 = 1132311 + 1132311 := \mathbf{2264622}$$

$$11311 \times 101 + 101 \times 11311 = 1142411 + 1142411 := \mathbf{2284822}$$

$$10301 \times 111 + 111 \times 10301 = 1143411 + 1143411 := \mathbf{2286822}$$

$$10001 \times 121 + 121 \times 10001 = 1210121 + 1210121 := \mathbf{2420242}$$

$$12021 \times 101 + 101 \times 12021 = 1214121 + 1214121 := \mathbf{2428242}$$

$$10101 \times 121 + 121 \times 10101 = 1222221 + 1222221 := \mathbf{2444442}$$

$$11011 \times 111 + 111 \times 11011 = 1222221 + 1222221 := \mathbf{2444442}$$

$$12121 \times 101 + 101 \times 12121 = 1224221 + 1224221 := \mathbf{2448442}$$

$$11111 \times 111 + 111 \times 11111 = 1233321 + 1233321 := \mathbf{2466642}$$

$$10201 \times 121 + 121 \times 10201 = 1234321 + 1234321 := \mathbf{2468642}$$

$$12221 \times 101 + 101 \times 12221 = 1234321 + 1234321 := \mathbf{2468642}$$

$$11211 \times 111 + 111 \times 11211 = 1244421 + 1244421 := \mathbf{2488842}$$

$$12321 \times 101 + 101 \times 12321 = 1244421 + 1244421 := \mathbf{2488842}$$

$$10001 \times 131 + 131 \times 10001 = 1310131 + 1310131 := \mathbf{2620262}$$

$$10101 \times 131 + 131 \times 10101 = 1323231 + 1323231 := \mathbf{2646462}$$

$$11011 \times 121 + 121 \times 11011 = 1332331 + 1332331 := \mathbf{2664662}$$

$$12021 \times 111 + 111 \times 12021 = 1334331 + 1334331 := \mathbf{2668662}$$

$$11111 \times 121 + 121 \times 11111 = 1344431 + 1344431 := \mathbf{2688862}$$

$$10001 \times 141 + 141 \times 10001 = 1410141 + 1410141 := \mathbf{2820282}$$

$$10101 \times 141 + 141 \times 10101 = 1424241 + 1424241 := \mathbf{2848482}$$

$$\begin{aligned}
11011 \times 131 + 131 \times 11011 &= 1442441 + 1442441 := \mathbf{2884882} & 11011 \times 222 + 222 \times 11011 &= 2444442 + 2444442 := \mathbf{4888884} \\
10001 \times 202 + 202 \times 10001 &= 2020202 + 2020202 := \mathbf{4040404} & 20202 \times 121 + 121 \times 20202 &= 2444442 + 2444442 := \mathbf{4888884} \\
20002 \times 101 + 101 \times 20002 &= 2020202 + 2020202 := \mathbf{4040404} & 22022 \times 111 + 111 \times 22022 &= 2444442 + 2444442 := \mathbf{4888884} \\
20102 \times 101 + 101 \times 20102 &= 2030302 + 2030302 := \mathbf{4060604} & 10001 \times 303 + 303 \times 10001 &= 3030303 + 3030303 := \mathbf{6060606} \\
10101 \times 202 + 202 \times 10101 &= 2040402 + 2040402 := \mathbf{4080804} & 30003 \times 101 + 101 \times 30003 &= 3030303 + 3030303 := \mathbf{6060606} \\
20202 \times 101 + 101 \times 20202 &= 2040402 + 2040402 := \mathbf{4080804} & 30103 \times 101 + 101 \times 30103 &= 3040403 + 3040403 := \mathbf{6080806} \\
10001 \times 212 + 212 \times 10001 &= 2120212 + 2120212 := \mathbf{4240424} & 10001 \times 313 + 313 \times 10001 &= 3130313 + 3130313 := \mathbf{6260626} \\
21012 \times 101 + 101 \times 21012 &= 2122212 + 2122212 := \mathbf{4244424} & 31013 \times 101 + 101 \times 31013 &= 3132313 + 3132313 := \mathbf{6264626} \\
21112 \times 101 + 101 \times 21112 &= 2132312 + 2132312 := \mathbf{4264624} & 31113 \times 101 + 101 \times 31113 &= 3142413 + 3142413 := \mathbf{6284826} \\
10101 \times 212 + 212 \times 10101 &= 2141412 + 2141412 := \mathbf{4282824} & 10001 \times 323 + 323 \times 10001 &= 3230323 + 3230323 := \mathbf{6460646} \\
21212 \times 101 + 101 \times 21212 &= 2142412 + 2142412 := \mathbf{4284824} & 32023 \times 101 + 101 \times 32023 &= 3234323 + 3234323 := \mathbf{6468646} \\
10001 \times 222 + 222 \times 10001 &= 2220222 + 2220222 := \mathbf{4440444} & 32123 \times 101 + 101 \times 32123 &= 3244423 + 3244423 := \mathbf{6488846} \\
20002 \times 111 + 111 \times 20002 &= 2220222 + 2220222 := \mathbf{4440444} & 10001 \times 333 + 333 \times 10001 &= 3330333 + 3330333 := \mathbf{6660666} \\
11011 \times 202 + 202 \times 11011 &= 2224222 + 2224222 := \mathbf{4448444} & 30003 \times 111 + 111 \times 30003 &= 3330333 + 3330333 := \mathbf{6660666} \\
22022 \times 101 + 101 \times 22022 &= 2224222 + 2224222 := \mathbf{4448444} & 30103 \times 111 + 111 \times 30103 &= 3341433 + 3341433 := \mathbf{6682866} \\
2222 \times 1001 + 1001 \times 2222 &= 2224222 + 2224222 := \mathbf{4448444} & 10001 \times 343 + 343 \times 10001 &= 3430343 + 3430343 := \mathbf{6860686} \\
20102 \times 111 + 111 \times 20102 &= 2231322 + 2231322 := \mathbf{4462644} & 31013 \times 111 + 111 \times 31013 &= 3442443 + 3442443 := \mathbf{6884886} \\
22122 \times 101 + 101 \times 22122 &= 2234322 + 2234322 := \mathbf{4468644} & 10001 \times 404 + 404 \times 10001 &= 4040404 + 4040404 := \mathbf{8080808} \\
10101 \times 222 + 222 \times 10101 &= 2242422 + 2242422 := \mathbf{4484844} & 20002 \times 202 + 202 \times 20002 &= 4040404 + 4040404 := \mathbf{8080808} \\
20202 \times 111 + 111 \times 20202 &= 2242422 + 2242422 := \mathbf{4484844} & 40004 \times 101 + 101 \times 40004 &= 4040404 + 4040404 := \mathbf{8080808} \\
11111 \times 202 + 202 \times 11111 &= 2244422 + 2244422 := \mathbf{4488844} & 10001 \times 414 + 414 \times 10001 &= 4140414 + 4140414 := \mathbf{8280828} \\
22222 \times 101 + 101 \times 22222 &= 2244422 + 2244422 := \mathbf{4488844} & 41014 \times 101 + 101 \times 41014 &= 4142414 + 4142414 := \mathbf{8284828} \\
10001 \times 232 + 232 \times 10001 &= 2320232 + 2320232 := \mathbf{4640464} & 10001 \times 424 + 424 \times 10001 &= 4240424 + 4240424 := \mathbf{8480848} \\
21012 \times 111 + 111 \times 21012 &= 2332332 + 2332332 := \mathbf{4664664} & 20002 \times 212 + 212 \times 20002 &= 4240424 + 4240424 := \mathbf{8480848} \\
11011 \times 212 + 212 \times 11011 &= 2334332 + 2334332 := \mathbf{4668664} & 21012 \times 202 + 202 \times 21012 &= 4244424 + 4244424 := \mathbf{8488848} \\
10101 \times 232 + 232 \times 10101 &= 2343432 + 2343432 := \mathbf{4686864} & 42024 \times 101 + 101 \times 42024 &= 4244424 + 4244424 := \mathbf{8488848} \\
21112 \times 111 + 111 \times 21112 &= 2343432 + 2343432 := \mathbf{4686864} & 10001 \times 434 + 434 \times 10001 &= 4340434 + 4340434 := \mathbf{8680868} \\
10001 \times 242 + 242 \times 10001 &= 2420242 + 2420242 := \mathbf{4840484} & 10001 \times 444 + 444 \times 10001 &= 4440444 + 4440444 := \mathbf{8880888} \\
20002 \times 121 + 121 \times 20002 &= 2420242 + 2420242 := \mathbf{4840484} & 20002 \times 222 + 222 \times 20002 &= 4440444 + 4440444 := \mathbf{8880888} \\
20102 \times 121 + 121 \times 20102 &= 2432342 + 2432342 := \mathbf{4864684} & 40004 \times 111 + 111 \times 40004 &= 4440444 + 4440444 := \mathbf{8880888} \\
10101 \times 242 + 242 \times 10101 &= 2444442 + 2444442 := \mathbf{4888884} & &
\end{aligned}$$

7.1.3 4-Digits Internal Product

$$\begin{aligned}
1001 \times 1001 + 1001 \times 1001 &= 1002001 + 1002001 := \mathbf{2004002} & 2002 \times 1111 + 1111 \times 2002 &= 2224222 + 2224222 := \mathbf{4448444} \\
1111 \times 1001 + 1001 \times 1111 &= 1112111 + 1112111 := \mathbf{2224222} & 2332 \times 1001 + 1001 \times 2332 &= 2334332 + 2334332 := \mathbf{4668664} \\
1221 \times 1001 + 1001 \times 1221 &= 1222211 + 1222211 := \mathbf{2444442} & 2002 \times 1221 + 1221 \times 2002 &= 2444442 + 2444442 := \mathbf{4888884} \\
1111 \times 1111 + 1111 \times 1111 &= 1234321 + 1234321 := \mathbf{2468642} & 2442 \times 1001 + 1001 \times 2442 &= 2444442 + 2444442 := \mathbf{4888884} \\
1331 \times 1001 + 1001 \times 1331 &= 1332331 + 1332331 := \mathbf{2664662} & & \\
1441 \times 1001 + 1001 \times 1441 &= 1442441 + 1442441 := \mathbf{2884882} & & \\
2002 \times 1001 + 1001 \times 2002 &= 2004002 + 2004002 := \mathbf{4008004} & 10001 \times 1001 + 1001 \times 10001 &= 10011001 + 10011001 := \mathbf{20022002} \\
2112 \times 1001 + 1001 \times 2112 &= 2114112 + 2114112 := \mathbf{4228224} & 10101 \times 1001 + 1001 \times 10101 &= 10111101 + 10111101 := \mathbf{20222202}
\end{aligned}$$

$$\begin{aligned}
10201 \times 1001 + 1001 \times 10201 &= 10211201 + 10211201 := \mathbf{20422402} & 21312 \times 1001 + 1001 \times 21312 &= 21333312 + 21333312 := \mathbf{42666624} \\
10301 \times 1001 + 1001 \times 10301 &= 10311301 + 10311301 := \mathbf{20622602} & 21412 \times 1001 + 1001 \times 21412 &= 21433412 + 21433412 := \mathbf{42866824} \\
10401 \times 1001 + 1001 \times 10401 &= 10411401 + 10411401 := \mathbf{20822802} & 11011 \times 2002 + 2002 \times 11011 &= 22044022 + 22044022 := \mathbf{44088044} \\
11011 \times 1001 + 1001 \times 11011 &= 11022011 + 11022011 := \mathbf{22044022} & 22022 \times 1001 + 1001 \times 22022 &= 22044022 + 22044022 := \mathbf{44088044} \\
10001 \times 1111 + 1111 \times 10001 &= 11111111 + 11111111 := \mathbf{22222222} & 22122 \times 1001 + 1001 \times 22122 &= 22144122 + 22144122 := \mathbf{44288244} \\
11111 \times 1001 + 1001 \times 11111 &= 11122111 + 11122111 := \mathbf{22244222} & 10001 \times 2222 + 2222 \times 10001 &= 22222222 + 22222222 := \mathbf{44444444} \\
10101 \times 1111 + 1111 \times 10101 &= 11222211 + 11222211 := \mathbf{22444422} & 20002 \times 1111 + 1111 \times 20002 &= 22222222 + 22222222 := \mathbf{44444444} \\
11211 \times 1001 + 1001 \times 11211 &= 11222211 + 11222211 := \mathbf{22444422} & 11111 \times 2002 + 2002 \times 11111 &= 22244222 + 22244222 := \mathbf{44488444} \\
11311 \times 1001 + 1001 \times 11311 &= 11322311 + 11322311 := \mathbf{22644622} & 22222 \times 1001 + 1001 \times 22222 &= 22244222 + 22244222 := \mathbf{44488444} \\
10201 \times 1111 + 1111 \times 10201 &= 11333311 + 11333311 := \mathbf{22666622} & 20102 \times 1111 + 1111 \times 20102 &= 22333322 + 22333322 := \mathbf{44666644} \\
11411 \times 1001 + 1001 \times 11411 &= 11422411 + 11422411 := \mathbf{22844822} & 22322 \times 1001 + 1001 \times 22322 &= 22344322 + 22344322 := \mathbf{44688644} \\
10301 \times 1111 + 1111 \times 10301 &= 11444411 + 11444411 := \mathbf{22888822} & 10101 \times 2222 + 2222 \times 10101 &= 22444422 + 22444422 := \mathbf{44888844} \\
12021 \times 1001 + 1001 \times 12021 &= 12033021 + 12033021 := \mathbf{24066042} & 11211 \times 2002 + 2002 \times 11211 &= 22444422 + 22444422 := \mathbf{44888844} \\
12121 \times 1001 + 1001 \times 12121 &= 12133121 + 12133121 := \mathbf{24266242} & 20202 \times 1111 + 1111 \times 20202 &= 22444422 + 22444422 := \mathbf{44888844} \\
10001 \times 1221 + 1221 \times 10001 &= 12211221 + 12211221 := \mathbf{24422442} & 22422 \times 1001 + 1001 \times 22422 &= 22444422 + 22444422 := \mathbf{44888844} \\
11011 \times 1111 + 1111 \times 11011 &= 12233221 + 12233221 := \mathbf{24466442} & 10001 \times 2332 + 2332 \times 10001 &= 23322332 + 23322332 := \mathbf{46644664} \\
12221 \times 1001 + 1001 \times 12221 &= 12233221 + 12233221 := \mathbf{24466442} & 21012 \times 1111 + 1111 \times 21012 &= 23344332 + 23344332 := \mathbf{46688664} \\
10101 \times 1221 + 1221 \times 10101 &= 12333321 + 12333321 := \mathbf{24666642} & 10001 \times 2442 + 2442 \times 10001 &= 24422442 + 24422442 := \mathbf{48844884} \\
12321 \times 1001 + 1001 \times 12321 &= 12333321 + 12333321 := \mathbf{24666642} & 20002 \times 1221 + 1221 \times 20002 &= 24422442 + 24422442 := \mathbf{48844884} \\
11111 \times 1111 + 1111 \times 11111 &= 12344321 + 12344321 := \mathbf{24688642} & 10001 \times 3003 + 3003 \times 10001 &= 30033003 + 30033003 := \mathbf{60066006} \\
12421 \times 1001 + 1001 \times 12421 &= 12433421 + 12433421 := \mathbf{24866842} & 30003 \times 1001 + 1001 \times 30003 &= 30033003 + 30033003 := \mathbf{60066006} \\
13031 \times 1001 + 1001 \times 13031 &= 13044031 + 13044031 := \mathbf{26088062} & 30103 \times 1001 + 1001 \times 30103 &= 30133103 + 30133103 := \mathbf{60266206} \\
13131 \times 1001 + 1001 \times 13131 &= 13144131 + 13144131 := \mathbf{26288262} & 30203 \times 1001 + 1001 \times 30203 &= 30233203 + 30233203 := \mathbf{60466406} \\
13231 \times 1001 + 1001 \times 13231 &= 13244231 + 13244231 := \mathbf{26488462} & 10101 \times 3003 + 3003 \times 10101 &= 30333303 + 30333303 := \mathbf{60666606} \\
10001 \times 1331 + 1331 \times 10001 &= 13311331 + 13311331 := \mathbf{26622662} & 30303 \times 1001 + 1001 \times 30303 &= 30333303 + 30333303 := \mathbf{60666606} \\
13331 \times 1001 + 1001 \times 13331 &= 13344331 + 13344331 := \mathbf{26688662} & 30403 \times 1001 + 1001 \times 30403 &= 30433403 + 30433403 := \mathbf{60866806} \\
10101 \times 1331 + 1331 \times 10101 &= 13444431 + 13444431 := \mathbf{26888862} & 31013 \times 1001 + 1001 \times 31013 &= 31044013 + 31044013 := \mathbf{62088026} \\
11011 \times 1221 + 1221 \times 11011 &= 13444431 + 13444431 := \mathbf{26888862} & 10001 \times 3113 + 3113 \times 10001 &= 31133113 + 31133113 := \mathbf{62266226} \\
13431 \times 1001 + 1001 \times 13431 &= 13444431 + 13444431 := \mathbf{26888862} & 31113 \times 1001 + 1001 \times 31113 &= 31144113 + 31144113 := \mathbf{62288226} \\
10001 \times 1441 + 1441 \times 10001 &= 14411441 + 14411441 := \mathbf{28822882} & 31213 \times 1001 + 1001 \times 31213 &= 31244213 + 31244213 := \mathbf{62488426} \\
10001 \times 2002 + 2002 \times 10001 &= 20022002 + 20022002 := \mathbf{40044004} & 31313 \times 1001 + 1001 \times 31313 &= 31344313 + 31344313 := \mathbf{62688626} \\
20002 \times 1001 + 1001 \times 20002 &= 20022002 + 20022002 := \mathbf{40044004} & 10101 \times 3113 + 3113 \times 10101 &= 31444413 + 31444413 := \mathbf{62888826} \\
20102 \times 1001 + 1001 \times 20102 &= 20122102 + 20122102 := \mathbf{40244204} & 31413 \times 1001 + 1001 \times 31413 &= 31444413 + 31444413 := \mathbf{62888826} \\
10101 \times 2002 + 2002 \times 10101 &= 20222202 + 20222202 := \mathbf{40444404} & 10001 \times 3223 + 3223 \times 10001 &= 32233223 + 32233223 := \mathbf{64466446} \\
20202 \times 1001 + 1001 \times 20202 &= 20222202 + 20222202 := \mathbf{40444404} & 10001 \times 3333 + 3333 \times 10001 &= 33333333 + 33333333 := \mathbf{66666666} \\
20302 \times 1001 + 1001 \times 20302 &= 20322302 + 20322302 := \mathbf{40644604} & 30003 \times 1111 + 1111 \times 30003 &= 33333333 + 33333333 := \mathbf{66666666} \\
10201 \times 2002 + 2002 \times 10201 &= 20422402 + 20422402 := \mathbf{40844804} & 30103 \times 1111 + 1111 \times 30103 &= 33444433 + 33444433 := \mathbf{66888866} \\
20402 \times 1001 + 1001 \times 20402 &= 20422402 + 20422402 := \mathbf{40844804} & 10001 \times 3443 + 3443 \times 10001 &= 34433443 + 34433443 := \mathbf{68866886} \\
21012 \times 1001 + 1001 \times 21012 &= 21033012 + 21033012 := \mathbf{42066024} & 10001 \times 4004 + 4004 \times 10001 &= 40044004 + 40044004 := \mathbf{80088008} \\
10001 \times 2112 + 2112 \times 10001 &= 21122112 + 21122112 := \mathbf{42244224} & 20002 \times 2002 + 2002 \times 20002 &= 40044004 + 40044004 := \mathbf{80088008} \\
21112 \times 1001 + 1001 \times 21112 &= 21133112 + 21133112 := \mathbf{42266224} & 40004 \times 1001 + 1001 \times 40004 &= 40044004 + 40044004 := \mathbf{80088008} \\
21212 \times 1001 + 1001 \times 21212 &= 21233212 + 21233212 := \mathbf{42466424} & 40104 \times 1001 + 1001 \times 40104 &= 40144104 + 40144104 := \mathbf{80288208} \\
10101 \times 2112 + 2112 \times 10101 &= 21333312 + 21333312 := \mathbf{42666624} & 20102 \times 2002 + 2002 \times 20102 &= 40244204 + 40244204 := \mathbf{80488408}
\end{aligned}$$

$40204 \times 1001 + 1001 \times 40204 = 40244204 + 40244204 := \mathbf{80488408}$
 $40304 \times 1001 + 1001 \times 40304 = 40344304 + 40344304 := \mathbf{80688608}$
 $10101 \times 4004 + 4004 \times 10101 = 40444404 + 40444404 := \mathbf{80888808}$
 $20202 \times 2002 + 2002 \times 20202 = 40444404 + 40444404 := \mathbf{80888808}$
 $40404 \times 1001 + 1001 \times 40404 = 40444404 + 40444404 := \mathbf{80888808}$
 $10001 \times 4114 + 4114 \times 10001 = 41144114 + 41144114 := \mathbf{82288228}$
 $10001 \times 4224 + 4224 \times 10001 = 42244224 + 42244224 := \mathbf{84488448}$

$20002 \times 2112 + 2112 \times 20002 = 42244224 + 42244224 := \mathbf{84488448}$
 $10001 \times 4334 + 4334 \times 10001 = 43344334 + 43344334 := \mathbf{86688668}$
 $10001 \times 4444 + 4444 \times 10001 = 44444444 + 44444444 := \mathbf{88888888}$
 $20002 \times 2222 + 2222 \times 20002 = 44444444 + 44444444 := \mathbf{88888888}$
 $40004 \times 1111 + 1111 \times 40004 = 44444444 + 44444444 := \mathbf{88888888}$

7.1.4 5-Digits Internal Product

$10001 \times 10001 + 10001 \times 10001 = 100020001 + 100020001 := \mathbf{200040002}$
 $10101 \times 10001 + 10001 \times 10101 = 101020101 + 101020101 := \mathbf{202040202}$
 $10201 \times 10001 + 10001 \times 10201 = 102020201 + 102020201 := \mathbf{204040402}$
 $10101 \times 10101 + 10101 \times 10101 = 102030201 + 102030201 := \mathbf{204060402}$
 $10301 \times 10001 + 10001 \times 10301 = 103020301 + 103020301 := \mathbf{206040602}$
 $10201 \times 10101 + 10101 \times 10201 = 103040301 + 103040301 := \mathbf{206080602}$
 $10401 \times 10001 + 10001 \times 10401 = 104020401 + 104020401 := \mathbf{208040802}$
 $11011 \times 10001 + 10001 \times 11011 = 110121011 + 110121011 := \mathbf{220242022}$
 $11111 \times 10001 + 10001 \times 11111 = 111121111 + 111121111 := \mathbf{222242222}$
 $11011 \times 10101 + 10101 \times 11011 = 111222111 + 111222111 := \mathbf{222444222}$
 $11211 \times 10001 + 10001 \times 11211 = 112121211 + 112121211 := \mathbf{224242422}$
 $11111 \times 10101 + 10101 \times 11111 = 112232211 + 112232211 := \mathbf{224464422}$
 $11011 \times 10201 + 10201 \times 11011 = 112323211 + 112323211 := \mathbf{224646422}$
 $11311 \times 10001 + 10001 \times 11311 = 113121311 + 113121311 := \mathbf{226242622}$
 $11211 \times 10101 + 10101 \times 11211 = 113242311 + 113242311 := \mathbf{226484622}$
 $11111 \times 10201 + 10201 \times 11111 = 113343311 + 113343311 := \mathbf{226686622}$
 $11011 \times 10301 + 10301 \times 11011 = 113424311 + 113424311 := \mathbf{226848622}$
 $11411 \times 10001 + 10001 \times 11411 = 114121411 + 114121411 := \mathbf{228242822}$
 $12021 \times 10001 + 10001 \times 12021 = 120222021 + 120222021 := \mathbf{240444042}$
 $12121 \times 10001 + 10001 \times 12121 = 121222121 + 121222121 := \mathbf{242444242}$
 $11011 \times 11011 + 11011 \times 11011 = 121242121 + 121242121 := \mathbf{242484242}$
 $12021 \times 10101 + 10101 \times 12021 = 121424121 + 121424121 := \mathbf{242848242}$
 $12221 \times 10001 + 10001 \times 12221 = 122222221 + 122222221 := \mathbf{244444442}$
 $11111 \times 11011 + 11011 \times 11111 = 122343221 + 122343221 := \mathbf{244686442}$
 $12121 \times 10101 + 10101 \times 12121 = 122434221 + 122434221 := \mathbf{244868442}$
 $12321 \times 10001 + 10001 \times 12321 = 123222321 + 123222321 := \mathbf{246444642}$
 $11211 \times 11011 + 11011 \times 11211 = 123444321 + 123444321 := \mathbf{246888642}$
 $12221 \times 10101 + 10101 \times 12221 = 123444321 + 123444321 := \mathbf{246888642}$
 $12421 \times 10001 + 10001 \times 12421 = 124222421 + 124222421 := \mathbf{248444842}$
 $13031 \times 10001 + 10001 \times 13031 = 130323031 + 130323031 := \mathbf{260646062}$
 $13131 \times 10001 + 10001 \times 13131 = 131323131 + 131323131 := \mathbf{262646262}$
 $13231 \times 10001 + 10001 \times 13231 = 132323231 + 132323231 := \mathbf{264646462}$
 $13331 \times 10001 + 10001 \times 13331 = 133323331 + 133323331 := \mathbf{266646662}$
 $13431 \times 10001 + 10001 \times 13431 = 134323431 + 134323431 := \mathbf{268646862}$
 $14041 \times 10001 + 10001 \times 14041 = 140424041 + 140424041 := \mathbf{280848082}$
 $14141 \times 10001 + 10001 \times 14141 = 141424141 + 141424141 := \mathbf{282848282}$
 $14241 \times 10001 + 10001 \times 14241 = 142424241 + 142424241 := \mathbf{284848482}$

$14341 \times 10001 + 10001 \times 14341 = 143424341 + 143424341 := \mathbf{286848682}$
 $14441 \times 10001 + 10001 \times 14441 = 144424441 + 144424441 := \mathbf{288848882}$
 $20002 \times 10001 + 10001 \times 20002 = 200040002 + 200040002 := \mathbf{400080004}$
 $20102 \times 10001 + 10001 \times 20102 = 201040102 + 201040102 := \mathbf{402080204}$
 $20002 \times 10101 + 10101 \times 20002 = 202040202 + 202040202 := \mathbf{404080404}$
 $20202 \times 10001 + 10001 \times 20202 = 202040202 + 202040202 := \mathbf{404080404}$
 $20302 \times 10001 + 10001 \times 20302 = 203040302 + 203040302 := \mathbf{406080604}$
 $20002 \times 10201 + 10201 \times 20002 = 204040402 + 204040402 := \mathbf{408080804}$
 $20402 \times 10001 + 10001 \times 20402 = 204040402 + 204040402 := \mathbf{408080804}$
 $21012 \times 10001 + 10001 \times 21012 = 210141012 + 210141012 := \mathbf{420282024}$
 $21112 \times 10001 + 10001 \times 21112 = 211141112 + 211141112 := \mathbf{422282224}$
 $21212 \times 10001 + 10001 \times 21212 = 212141212 + 212141212 := \mathbf{424282424}$
 $21012 \times 10101 + 10101 \times 21012 = 212242212 + 212242212 := \mathbf{424484424}$
 $21312 \times 10001 + 10001 \times 21312 = 213141312 + 213141312 := \mathbf{426282624}$
 $21412 \times 10001 + 10001 \times 21412 = 214141412 + 214141412 := \mathbf{428282824}$
 $21012 \times 10201 + 10201 \times 21012 = 214343412 + 214343412 := \mathbf{428686824}$
 $20002 \times 11011 + 11011 \times 20002 = 220242022 + 220242022 := \mathbf{440484044}$
 $22022 \times 10001 + 10001 \times 22022 = 220242022 + 220242022 := \mathbf{440484044}$
 $22122 \times 10001 + 10001 \times 22122 = 221242122 + 221242122 := \mathbf{442484244}$
 $20102 \times 11011 + 11011 \times 20102 = 221343122 + 221343122 := \mathbf{442686244}$
 $20002 \times 11111 + 11111 \times 20002 = 222242222 + 222242222 := \mathbf{444484444}$
 $22222 \times 10001 + 10001 \times 22222 = 222242222 + 222242222 := \mathbf{444484444}$
 $20202 \times 11011 + 11011 \times 20202 = 222444222 + 222444222 := \mathbf{444888444}$
 $22022 \times 10101 + 10101 \times 22022 = 222444222 + 222444222 := \mathbf{444888444}$
 $22322 \times 10001 + 10001 \times 22322 = 223242322 + 223242322 := \mathbf{446484644}$
 $20002 \times 11211 + 11211 \times 20002 = 224242422 + 224242422 := \mathbf{448484844}$
 $22422 \times 10001 + 10001 \times 22422 = 224242422 + 224242422 := \mathbf{448484844}$
 $23032 \times 10001 + 10001 \times 23032 = 230343032 + 230343032 := \mathbf{460686064}$
 $23132 \times 10001 + 10001 \times 23132 = 231343132 + 231343132 := \mathbf{462686264}$
 $23232 \times 10001 + 10001 \times 23232 = 232343232 + 232343232 := \mathbf{464686464}$
 $23332 \times 10001 + 10001 \times 23332 = 233343332 + 233343332 := \mathbf{466686664}$
 $23432 \times 10001 + 10001 \times 23432 = 234343432 + 234343432 := \mathbf{468686864}$
 $20002 \times 12021 + 12021 \times 20002 = 240444042 + 240444042 := \mathbf{480888084}$
 $24042 \times 10001 + 10001 \times 24042 = 240444042 + 240444042 := \mathbf{480888084}$
 $24142 \times 10001 + 10001 \times 24142 = 241444142 + 241444142 := \mathbf{482888284}$
 $20002 \times 12121 + 12121 \times 20002 = 242444242 + 242444242 := \mathbf{484888484}$
 $24242 \times 10001 + 10001 \times 24242 = 242444242 + 242444242 := \mathbf{484888484}$

$$24342 \times 10001 + 10001 \times 24342 = 243444342 + 243444342 := \mathbf{486888684}$$

$$20002 \times 12221 + 12221 \times 20002 = 244444442 + 244444442 := \mathbf{488888884}$$

$$24442 \times 10001 + 10001 \times 24442 = 244444442 + 244444442 := \mathbf{488888884}$$

7.2 Non Palindromic Sum

Below are numbers, where each multiplicative factor is a palindrome but final sum is not a palindrome.

7.2.1 2-Digits Internal Product

$$33 \times 11 + 11 \times 33 = 363 + 363 := \mathbf{726}$$

$$22 \times 22 + 22 \times 22 = 484 + 484 := \mathbf{968}$$

$$44 \times 11 + 11 \times 44 = 484 + 484 := \mathbf{968}$$

$$99 \times 55 + 55 \times 99 = 5445 + 5445 := \mathbf{10890}$$

$$88 \times 77 + 77 \times 88 = 6776 + 6776 := \mathbf{13552}$$

$$141 \times 11 + 11 \times 141 = 1551 + 1551 := \mathbf{3102}$$

$$151 \times 11 + 11 \times 151 = 1661 + 1661 := \mathbf{3322}$$

$$161 \times 11 + 11 \times 161 = 1771 + 1771 := \mathbf{3542}$$

$$171 \times 11 + 11 \times 171 = 1881 + 1881 := \mathbf{3762}$$

$$181 \times 11 + 11 \times 181 = 1991 + 1991 := \mathbf{3982}$$

$$232 \times 11 + 11 \times 232 = 2552 + 2552 := \mathbf{5104}$$

$$121 \times 22 + 22 \times 121 = 2662 + 2662 := \mathbf{5324}$$

$$242 \times 11 + 11 \times 242 = 2662 + 2662 := \mathbf{5324}$$

$$252 \times 11 + 11 \times 252 = 2772 + 2772 := \mathbf{5544}$$

$$131 \times 22 + 22 \times 131 = 2882 + 2882 := \mathbf{5764}$$

$$262 \times 11 + 11 \times 262 = 2882 + 2882 := \mathbf{5764}$$

$$272 \times 11 + 11 \times 272 = 2992 + 2992 := \mathbf{5984}$$

$$323 \times 11 + 11 \times 323 = 3553 + 3553 := \mathbf{7106}$$

$$111 \times 33 + 33 \times 111 = 3663 + 3663 := \mathbf{7326}$$

$$333 \times 11 + 11 \times 333 = 3663 + 3663 := \mathbf{7326}$$

$$343 \times 11 + 11 \times 343 = 3773 + 3773 := \mathbf{7546}$$

$$353 \times 11 + 11 \times 353 = 3883 + 3883 := \mathbf{7766}$$

$$121 \times 33 + 33 \times 121 = 3993 + 3993 := \mathbf{7986}$$

$$363 \times 11 + 11 \times 363 = 3993 + 3993 := \mathbf{7986}$$

$$414 \times 11 + 11 \times 414 = 4554 + 4554 := \mathbf{9108}$$

$$212 \times 22 + 22 \times 212 = 4664 + 4664 := \mathbf{9328}$$

$$424 \times 11 + 11 \times 424 = 4664 + 4664 := \mathbf{9328}$$

$$434 \times 11 + 11 \times 434 = 4774 + 4774 := \mathbf{9548}$$

$$111 \times 44 + 44 \times 111 = 4884 + 4884 := \mathbf{9768}$$

$$222 \times 22 + 22 \times 222 = 4884 + 4884 := \mathbf{9768}$$

$$444 \times 11 + 11 \times 444 = 4884 + 4884 := \mathbf{9768}$$

$$454 \times 11 + 11 \times 454 = 4994 + 4994 := \mathbf{9988}$$

$$101 \times 55 + 55 \times 101 = 5555 + 5555 := \mathbf{11110}$$

$$505 \times 11 + 11 \times 505 = 5555 + 5555 := \mathbf{11110}$$

$$515 \times 11 + 11 \times 515 = 5665 + 5665 := \mathbf{11330}$$

$$525 \times 11 + 11 \times 525 = 5775 + 5775 := \mathbf{11550}$$

$$535 \times 11 + 11 \times 535 = 5885 + 5885 := \mathbf{11770}$$

$$545 \times 11 + 11 \times 545 = 5995 + 5995 := \mathbf{11990}$$

$$101 \times 66 + 66 \times 101 = 6666 + 6666 := \mathbf{13332}$$

$$202 \times 33 + 33 \times 202 = 6666 + 6666 := \mathbf{13332}$$

$$303 \times 22 + 22 \times 303 = 6666 + 6666 := \mathbf{13332}$$

$$606 \times 11 + 11 \times 606 = 6666 + 6666 := \mathbf{13332}$$

$$616 \times 11 + 11 \times 616 = 6776 + 6776 := \mathbf{13552}$$

$$313 \times 22 + 22 \times 313 = 6886 + 6886 := \mathbf{13772}$$

$$626 \times 11 + 11 \times 626 = 6886 + 6886 := \mathbf{13772}$$

$$212 \times 33 + 33 \times 212 = 6996 + 6996 := \mathbf{13992}$$

$$636 \times 11 + 11 \times 636 = 6996 + 6996 := \mathbf{13992}$$

$$101 \times 77 + 77 \times 101 = 7777 + 7777 := \mathbf{15554}$$

$$707 \times 11 + 11 \times 707 = 7777 + 7777 := \mathbf{15554}$$

$$717 \times 11 + 11 \times 717 = 7887 + 7887 := \mathbf{15774}$$

$$727 \times 11 + 11 \times 727 = 7997 + 7997 := \mathbf{15994}$$

$$101 \times 88 + 88 \times 101 = 8888 + 8888 := \mathbf{17776}$$

$$202 \times 44 + 44 \times 202 = 8888 + 8888 := \mathbf{17776}$$

$$404 \times 22 + 22 \times 404 = 8888 + 8888 := \mathbf{17776}$$

$$808 \times 11 + 11 \times 808 = 8888 + 8888 := \mathbf{17776}$$

$$818 \times 11 + 11 \times 818 = 8998 + 8998 := \mathbf{17996}$$

$$101 \times 99 + 99 \times 101 = 9999 + 9999 := \mathbf{19998}$$

$$303 \times 33 + 33 \times 303 = 9999 + 9999 := \mathbf{19998}$$

$$909 \times 11 + 11 \times 909 = 9999 + 9999 := \mathbf{19998}$$

$$555 \times 99 + 99 \times 555 = 54945 + 54945 := \mathbf{109890}$$

$$999 \times 55 + 55 \times 999 = 54945 + 54945 := \mathbf{109890}$$

$$858 \times 77 + 77 \times 858 = 66066 + 66066 := \mathbf{132132}$$

$$1331 \times 11 + 11 \times 1331 = 14641 + 14641 := \mathbf{29282}$$

$$1441 \times 11 + 11 \times 1441 = 15851 + 15851 := \mathbf{31702}$$

$$2332 \times 11 + 11 \times 2332 = 25652 + 25652 := \mathbf{51304}$$

$$1221 \times 22 + 22 \times 1221 = 26862 + 26862 := \mathbf{53724}$$

$$2442 \times 11 + 11 \times 2442 = 26862 + 26862 := \mathbf{53724}$$

$$3223 \times 11 + 11 \times 3223 = 35453 + 35453 := \mathbf{70906}$$

$$1111 \times 33 + 33 \times 1111 = 36663 + 36663 := \mathbf{73326}$$

$$3333 \times 11 + 11 \times 3333 = 36663 + 36663 := \mathbf{73326}$$

$$3443 \times 11 + 11 \times 3443 = 37873 + 37873 := \mathbf{75746}$$

$$4114 \times 11 + 11 \times 4114 = 45254 + 45254 := \mathbf{90508}$$

$$2112 \times 22 + 22 \times 2112 = 46464 + 46464 := \mathbf{92928}$$

$$4224 \times 11 + 11 \times 4224 = 46464 + 46464 := \mathbf{92928}$$

$$4334 \times 11 + 11 \times 4334 = 47674 + 47674 := \mathbf{95348}$$

$$1111 \times 44 + 44 \times 1111 = 48884 + 48884 := \mathbf{97768}$$

$$2222 \times 22 + 22 \times 2222 = 48884 + 48884 := \mathbf{97768}$$

$$4444 \times 11 + 11 \times 4444 = 48884 + 48884 := \mathbf{97768}$$

$$1001 \times 55 + 55 \times 1001 = 55055 + 55055 := \mathbf{110110}$$

$$5005 \times 11 + 11 \times 5005 = 55055 + 55055 := \mathbf{110110}$$

$$5115 \times 11 + 11 \times 5115 = 56265 + 56265 := \mathbf{112530}$$

$$5225 \times 11 + 11 \times 5225 = 57475 + 57475 := \mathbf{114950}$$

$$5335 \times 11 + 11 \times 5335 = 58685 + 58685 := \mathbf{117370}$$

$$5445 \times 11 + 11 \times 5445 = 59895 + 59895 := \mathbf{119790}$$

$$1001 \times 66 + 66 \times 1001 = 66066 + 66066 := \mathbf{132132}$$

$$2002 \times 33 + 33 \times 2002 = 66066 + 66066 := \mathbf{132132}$$

$$3003 \times 22 + 22 \times 3003 = 66066 + 66066 := \mathbf{132132}$$

$$6006 \times 11 + 11 \times 6006 = 66066 + 66066 := \mathbf{132132}$$

$$6116 \times 11 + 11 \times 6116 = 67276 + 67276 := \mathbf{134552}$$

$$3113 \times 22 + 22 \times 3113 = 68486 + 68486 := \mathbf{136972}$$

$$6226 \times 11 + 11 \times 6226 = 68486 + 68486 := \mathbf{136972}$$

$$2112 \times 33 + 33 \times 2112 = 69696 + 69696 := \mathbf{139392}$$

$$6336 \times 11 + 11 \times 6336 = 69696 + 69696 := \mathbf{139392}$$

$$1001 \times 77 + 77 \times 1001 = 77077 + 77077 := \mathbf{154154}$$

$$7007 \times 11 + 11 \times 7007 = 77077 + 77077 := \mathbf{154154}$$

$$7117 \times 11 + 11 \times 7117 = 78287 + 78287 := \mathbf{156574}$$

$$7227 \times 11 + 11 \times 7227 = 79497 + 79497 := \mathbf{158994}$$

$$1001 \times 88 + 88 \times 1001 = 88088 + 88088 := \mathbf{176176}$$

$$2002 \times 44 + 44 \times 2002 = 88088 + 88088 := \mathbf{176176}$$

$$4004 \times 22 + 22 \times 4004 = 88088 + 88088 := \mathbf{176176}$$

$$8008 \times 11 + 11 \times 8008 = 88088 + 88088 := \mathbf{176176}$$

$$8118 \times 11 + 11 \times 8118 = 89298 + 89298 := \mathbf{178596}$$

$$1001 \times 99 + 99 \times 1001 = 99099 + 99099 := \mathbf{198198}$$

$$3003 \times 33 + 33 \times 3003 = 99099 + 99099 := \mathbf{198198}$$

$$9009 \times 11 + 11 \times 9009 = 99099 + 99099 := \mathbf{198198}$$

$$5555 \times 99 + 99 \times 5555 = 549945 + 549945 := \mathbf{1099890}$$

$$9999 \times 55 + 55 \times 9999 = 549945 + 549945 := \mathbf{1099890}$$

$$7007 \times 88 + 88 \times 7007 = 616616 + 616616 := \mathbf{1233232}$$

$$8008 \times 77 + 77 \times 8008 = 616616 + 616616 := \mathbf{1233232}$$

$$10501 \times 11 + 11 \times 10501 = 115511 + 115511 := \mathbf{231022}$$

$$10601 \times 11 + 11 \times 10601 = 116611 + 116611 := \mathbf{233222}$$

$$10701 \times 11 + 11 \times 10701 = 117711 + 117711 := \mathbf{235422}$$

$$10801 \times 11 + 11 \times 10801 = 118811 + 118811 := \mathbf{237622}$$

$$10901 \times 11 + 11 \times 10901 = 119911 + 119911 := \mathbf{239822}$$

$$11411 \times 11 + 11 \times 11411 = 125521 + 125521 := \mathbf{251042}$$

$$11511 \times 11 + 11 \times 11511 = 126621 + 126621 := \mathbf{253242}$$

$$11611 \times 11 + 11 \times 11611 = 127721 + 127721 := \mathbf{255442}$$

$$11711 \times 11 + 11 \times 11711 = 128821 + 128821 := \mathbf{257642}$$

$$11811 \times 11 + 11 \times 11811 = 129921 + 129921 := \mathbf{259842}$$

$$12321 \times 11 + 11 \times 12321 = 135531 + 135531 := \mathbf{271062}$$

$$12421 \times 11 + 11 \times 12421 = 136631 + 136631 := \mathbf{273262}$$

$$12521 \times 11 + 11 \times 12521 = 137731 + 137731 := \mathbf{275462}$$

$$12621 \times 11 + 11 \times 12621 = 138831 + 138831 := \mathbf{277662}$$

$$12721 \times 11 + 11 \times 12721 = 139931 + 139931 := \mathbf{279862}$$

$$13231 \times 11 + 11 \times 13231 = 145541 + 145541 := \mathbf{291082}$$

$$13331 \times 11 + 11 \times 13331 = 146641 + 146641 := \mathbf{293282}$$

$$13431 \times 11 + 11 \times 13431 = 147741 + 147741 := \mathbf{295482}$$

$$13531 \times 11 + 11 \times 13531 = 148841 + 148841 := \mathbf{297682}$$

$$13631 \times 11 + 11 \times 13631 = 149941 + 149941 := \mathbf{299882}$$

$$14041 \times 11 + 11 \times 14041 = 154451 + 154451 := \mathbf{308902}$$

$$14141 \times 11 + 11 \times 14141 = 155551 + 155551 := \mathbf{311102}$$

$$14241 \times 11 + 11 \times 14241 = 156651 + 156651 := \mathbf{313302}$$

$$14341 \times 11 + 11 \times 14341 = 157751 + 157751 := \mathbf{315502}$$

$$14441 \times 11 + 11 \times 14441 = 158851 + 158851 := \mathbf{317702}$$

$$14541 \times 11 + 11 \times 14541 = 159951 + 159951 := \mathbf{319902}$$

$$15051 \times 11 + 11 \times 15051 = 165561 + 165561 := \mathbf{331122}$$

$$15151 \times 11 + 11 \times 15151 = 166661 + 166661 := \mathbf{333322}$$

$$15251 \times 11 + 11 \times 15251 = 167761 + 167761 := \mathbf{335522}$$

$$15351 \times 11 + 11 \times 15351 = 168861 + 168861 := \mathbf{337722}$$

$$15451 \times 11 + 11 \times 15451 = 169961 + 169961 := \mathbf{339922}$$

$$16061 \times 11 + 11 \times 16061 = 176671 + 176671 := \mathbf{353342}$$

$$16161 \times 11 + 11 \times 16161 = 177771 + 177771 := \mathbf{355542}$$

$16261 \times 11 + 11 \times 16261 = 178871 + 178871 := \mathbf{357742}$
 $16361 \times 11 + 11 \times 16361 = 179971 + 179971 := \mathbf{359942}$
 $17071 \times 11 + 11 \times 17071 = 187781 + 187781 := \mathbf{375562}$
 $17171 \times 11 + 11 \times 17171 = 188881 + 188881 := \mathbf{377762}$
 $17271 \times 11 + 11 \times 17271 = 189981 + 189981 := \mathbf{379962}$
 $18081 \times 11 + 11 \times 18081 = 198891 + 198891 := \mathbf{397782}$
 $18181 \times 11 + 11 \times 18181 = 199991 + 199991 := \mathbf{399982}$
 $20502 \times 11 + 11 \times 20502 = 225522 + 225522 := \mathbf{451044}$
 $10301 \times 22 + 22 \times 10301 = 226622 + 226622 := \mathbf{453244}$
 $20602 \times 11 + 11 \times 20602 = 226622 + 226622 := \mathbf{453244}$
 $20702 \times 11 + 11 \times 20702 = 227722 + 227722 := \mathbf{455444}$
 $10401 \times 22 + 22 \times 10401 = 228822 + 228822 := \mathbf{457644}$
 $20802 \times 11 + 11 \times 20802 = 228822 + 228822 := \mathbf{457644}$
 $20902 \times 11 + 11 \times 20902 = 229922 + 229922 := \mathbf{459844}$
 $21012 \times 11 + 11 \times 21012 = 231132 + 231132 := \mathbf{462264}$
 $21112 \times 11 + 11 \times 21112 = 232232 + 232232 := \mathbf{464464}$
 $21412 \times 11 + 11 \times 21412 = 235532 + 235532 := \mathbf{471064}$
 $21512 \times 11 + 11 \times 21512 = 236632 + 236632 := \mathbf{473264}$
 $21612 \times 11 + 11 \times 21612 = 237732 + 237732 := \mathbf{475464}$
 $21712 \times 11 + 11 \times 21712 = 238832 + 238832 := \mathbf{477664}$
 $21812 \times 11 + 11 \times 21812 = 239932 + 239932 := \mathbf{479864}$
 $11111 \times 22 + 22 \times 11111 = 244442 + 244442 := \mathbf{488884}$
 $22322 \times 11 + 11 \times 22322 = 245542 + 245542 := \mathbf{491084}$
 $11211 \times 22 + 22 \times 11211 = 246642 + 246642 := \mathbf{493284}$
 $22422 \times 11 + 11 \times 22422 = 246642 + 246642 := \mathbf{493284}$
 $22522 \times 11 + 11 \times 22522 = 247742 + 247742 := \mathbf{495484}$
 $11311 \times 22 + 22 \times 11311 = 248842 + 248842 := \mathbf{497684}$
 $22622 \times 11 + 11 \times 22622 = 248842 + 248842 := \mathbf{497684}$
 $22722 \times 11 + 11 \times 22722 = 249942 + 249942 := \mathbf{499884}$
 $23032 \times 11 + 11 \times 23032 = 253352 + 253352 := \mathbf{506704}$
 $23132 \times 11 + 11 \times 23132 = 254452 + 254452 := \mathbf{508904}$
 $23232 \times 11 + 11 \times 23232 = 255552 + 255552 := \mathbf{511104}$
 $23332 \times 11 + 11 \times 23332 = 256652 + 256652 := \mathbf{513304}$
 $23432 \times 11 + 11 \times 23432 = 257752 + 257752 := \mathbf{515504}$
 $23532 \times 11 + 11 \times 23532 = 258852 + 258852 := \mathbf{517704}$
 $23632 \times 11 + 11 \times 23632 = 259952 + 259952 := \mathbf{519904}$
 $12021 \times 22 + 22 \times 12021 = 264462 + 264462 := \mathbf{528924}$
 $24042 \times 11 + 11 \times 24042 = 264462 + 264462 := \mathbf{528924}$
 $24142 \times 11 + 11 \times 24142 = 265562 + 265562 := \mathbf{531124}$
 $12121 \times 22 + 22 \times 12121 = 266662 + 266662 := \mathbf{533324}$
 $24242 \times 11 + 11 \times 24242 = 266662 + 266662 := \mathbf{533324}$

$24342 \times 11 + 11 \times 24342 = 267762 + 267762 := \mathbf{535524}$
 $12221 \times 22 + 22 \times 12221 = 268862 + 268862 := \mathbf{537724}$
 $24442 \times 11 + 11 \times 24442 = 268862 + 268862 := \mathbf{537724}$
 $24542 \times 11 + 11 \times 24542 = 269962 + 269962 := \mathbf{539924}$
 $25052 \times 11 + 11 \times 25052 = 275572 + 275572 := \mathbf{551144}$
 $25152 \times 11 + 11 \times 25152 = 276672 + 276672 := \mathbf{553344}$
 $25252 \times 11 + 11 \times 25252 = 277772 + 277772 := \mathbf{555544}$
 $25352 \times 11 + 11 \times 25352 = 278872 + 278872 := \mathbf{557744}$
 $25452 \times 11 + 11 \times 25452 = 279972 + 279972 := \mathbf{559944}$
 $13031 \times 22 + 22 \times 13031 = 286682 + 286682 := \mathbf{573364}$
 $26062 \times 11 + 11 \times 26062 = 286682 + 286682 := \mathbf{573364}$
 $26162 \times 11 + 11 \times 26162 = 287782 + 287782 := \mathbf{575564}$
 $13131 \times 22 + 22 \times 13131 = 288882 + 288882 := \mathbf{577764}$
 $26262 \times 11 + 11 \times 26262 = 288882 + 288882 := \mathbf{577764}$
 $26362 \times 11 + 11 \times 26362 = 289982 + 289982 := \mathbf{579964}$
 $27072 \times 11 + 11 \times 27072 = 297792 + 297792 := \mathbf{595584}$
 $27172 \times 11 + 11 \times 27172 = 298892 + 298892 := \mathbf{597784}$
 $27272 \times 11 + 11 \times 27272 = 299992 + 299992 := \mathbf{599984}$
 $30503 \times 11 + 11 \times 30503 = 335533 + 335533 := \mathbf{671066}$
 $10201 \times 33 + 33 \times 10201 = 336633 + 336633 := \mathbf{673266}$
 $30603 \times 11 + 11 \times 30603 = 336633 + 336633 := \mathbf{673266}$
 $30703 \times 11 + 11 \times 30703 = 337733 + 337733 := \mathbf{675466}$
 $30803 \times 11 + 11 \times 30803 = 338833 + 338833 := \mathbf{677666}$
 $10301 \times 33 + 33 \times 10301 = 339933 + 339933 := \mathbf{679866}$
 $30903 \times 11 + 11 \times 30903 = 339933 + 339933 := \mathbf{679866}$
 $31413 \times 11 + 11 \times 31413 = 345543 + 345543 := \mathbf{691086}$
 $31513 \times 11 + 11 \times 31513 = 346643 + 346643 := \mathbf{693286}$
 $31613 \times 11 + 11 \times 31613 = 347743 + 347743 := \mathbf{695486}$
 $31713 \times 11 + 11 \times 31713 = 348843 + 348843 := \mathbf{697686}$
 $31813 \times 11 + 11 \times 31813 = 349943 + 349943 := \mathbf{699886}$
 $32023 \times 11 + 11 \times 32023 = 352253 + 352253 := \mathbf{704506}$
 $32123 \times 11 + 11 \times 32123 = 353353 + 353353 := \mathbf{706706}$
 $32223 \times 11 + 11 \times 32223 = 354453 + 354453 := \mathbf{708906}$
 $32323 \times 11 + 11 \times 32323 = 355553 + 355553 := \mathbf{711106}$
 $32423 \times 11 + 11 \times 32423 = 356653 + 356653 := \mathbf{713306}$
 $32523 \times 11 + 11 \times 32523 = 357753 + 357753 := \mathbf{715506}$
 $32623 \times 11 + 11 \times 32623 = 358853 + 358853 := \mathbf{717706}$
 $32723 \times 11 + 11 \times 32723 = 359953 + 359953 := \mathbf{719906}$
 $11011 \times 33 + 33 \times 11011 = 363363 + 363363 := \mathbf{726726}$
 $33033 \times 11 + 11 \times 33033 = 363363 + 363363 := \mathbf{726726}$
 $33133 \times 11 + 11 \times 33133 = 364463 + 364463 := \mathbf{728926}$

$33233 \times 11 + 11 \times 33233 = 365563 + 365563 := \mathbf{731126}$
 $11111 \times 33 + 33 \times 11111 = 366663 + 366663 := \mathbf{733326}$
 $33333 \times 11 + 11 \times 33333 = 366663 + 366663 := \mathbf{733326}$
 $33433 \times 11 + 11 \times 33433 = 367763 + 367763 := \mathbf{735526}$
 $33533 \times 11 + 11 \times 33533 = 368863 + 368863 := \mathbf{737726}$
 $11211 \times 33 + 33 \times 11211 = 369963 + 369963 := \mathbf{739926}$
 $33633 \times 11 + 11 \times 33633 = 369963 + 369963 := \mathbf{739926}$
 $34043 \times 11 + 11 \times 34043 = 374473 + 374473 := \mathbf{748946}$
 $34143 \times 11 + 11 \times 34143 = 375573 + 375573 := \mathbf{751146}$
 $34243 \times 11 + 11 \times 34243 = 376673 + 376673 := \mathbf{753346}$
 $34343 \times 11 + 11 \times 34343 = 377773 + 377773 := \mathbf{755546}$
 $34443 \times 11 + 11 \times 34443 = 378873 + 378873 := \mathbf{757746}$
 $34543 \times 11 + 11 \times 34543 = 379973 + 379973 := \mathbf{759946}$
 $35053 \times 11 + 11 \times 35053 = 385583 + 385583 := \mathbf{771166}$
 $35153 \times 11 + 11 \times 35153 = 386683 + 386683 := \mathbf{773366}$
 $35253 \times 11 + 11 \times 35253 = 387783 + 387783 := \mathbf{775566}$
 $35353 \times 11 + 11 \times 35353 = 388883 + 388883 := \mathbf{777766}$
 $35453 \times 11 + 11 \times 35453 = 389983 + 389983 := \mathbf{779966}$
 $12021 \times 33 + 33 \times 12021 = 396693 + 396693 := \mathbf{793386}$
 $36063 \times 11 + 11 \times 36063 = 396693 + 396693 := \mathbf{793386}$
 $36163 \times 11 + 11 \times 36163 = 397793 + 397793 := \mathbf{795586}$
 $36263 \times 11 + 11 \times 36263 = 398893 + 398893 := \mathbf{797786}$
 $12121 \times 33 + 33 \times 12121 = 399993 + 399993 := \mathbf{799986}$
 $36363 \times 11 + 11 \times 36363 = 399993 + 399993 := \mathbf{799986}$
 $40504 \times 11 + 11 \times 40504 = 445544 + 445544 := \mathbf{891088}$
 $20302 \times 22 + 22 \times 20302 = 446644 + 446644 := \mathbf{893288}$
 $40604 \times 11 + 11 \times 40604 = 446644 + 446644 := \mathbf{893288}$
 $40704 \times 11 + 11 \times 40704 = 447744 + 447744 := \mathbf{895488}$
 $10201 \times 44 + 44 \times 10201 = 448844 + 448844 := \mathbf{897688}$
 $20402 \times 22 + 22 \times 20402 = 448844 + 448844 := \mathbf{897688}$
 $40804 \times 11 + 11 \times 40804 = 448844 + 448844 := \mathbf{897688}$
 $40904 \times 11 + 11 \times 40904 = 449944 + 449944 := \mathbf{899888}$
 $41014 \times 11 + 11 \times 41014 = 451154 + 451154 := \mathbf{902308}$
 $41114 \times 11 + 11 \times 41114 = 452254 + 452254 := \mathbf{904508}$
 $41214 \times 11 + 11 \times 41214 = 453354 + 453354 := \mathbf{906708}$
 $41314 \times 11 + 11 \times 41314 = 454454 + 454454 := \mathbf{908908}$
 $41414 \times 11 + 11 \times 41414 = 455554 + 455554 := \mathbf{911108}$
 $41514 \times 11 + 11 \times 41514 = 456654 + 456654 := \mathbf{913308}$
 $41614 \times 11 + 11 \times 41614 = 457754 + 457754 := \mathbf{915508}$
 $41714 \times 11 + 11 \times 41714 = 458854 + 458854 := \mathbf{917708}$
 $41814 \times 11 + 11 \times 41814 = 459954 + 459954 := \mathbf{919908}$

$21012 \times 22 + 22 \times 21012 = 462264 + 462264 := \mathbf{924528}$
 $42024 \times 11 + 11 \times 42024 = 462264 + 462264 := \mathbf{924528}$
 $42124 \times 11 + 11 \times 42124 = 463364 + 463364 := \mathbf{926728}$
 $21112 \times 22 + 22 \times 21112 = 464464 + 464464 := \mathbf{928928}$
 $42224 \times 11 + 11 \times 42224 = 464464 + 464464 := \mathbf{928928}$
 $42324 \times 11 + 11 \times 42324 = 465564 + 465564 := \mathbf{931128}$
 $21212 \times 22 + 22 \times 21212 = 466664 + 466664 := \mathbf{933328}$
 $42424 \times 11 + 11 \times 42424 = 466664 + 466664 := \mathbf{933328}$
 $42524 \times 11 + 11 \times 42524 = 467764 + 467764 := \mathbf{935528}$
 $21312 \times 22 + 22 \times 21312 = 468864 + 468864 := \mathbf{937728}$
 $42624 \times 11 + 11 \times 42624 = 468864 + 468864 := \mathbf{937728}$
 $42724 \times 11 + 11 \times 42724 = 469964 + 469964 := \mathbf{939928}$
 $43034 \times 11 + 11 \times 43034 = 473374 + 473374 := \mathbf{946748}$
 $43134 \times 11 + 11 \times 43134 = 474474 + 474474 := \mathbf{948948}$
 $43234 \times 11 + 11 \times 43234 = 475574 + 475574 := \mathbf{951148}$
 $43334 \times 11 + 11 \times 43334 = 476674 + 476674 := \mathbf{953348}$
 $43434 \times 11 + 11 \times 43434 = 477774 + 477774 := \mathbf{955548}$
 $43534 \times 11 + 11 \times 43534 = 478874 + 478874 := \mathbf{957748}$
 $43634 \times 11 + 11 \times 43634 = 479974 + 479974 := \mathbf{959948}$
 $11011 \times 44 + 44 \times 11011 = 484484 + 484484 := \mathbf{968968}$
 $22022 \times 22 + 22 \times 22022 = 484484 + 484484 := \mathbf{968968}$
 $44044 \times 11 + 11 \times 44044 = 484484 + 484484 := \mathbf{968968}$
 $44144 \times 11 + 11 \times 44144 = 485584 + 485584 := \mathbf{971168}$
 $22122 \times 22 + 22 \times 22122 = 486684 + 486684 := \mathbf{973368}$
 $44244 \times 11 + 11 \times 44244 = 486684 + 486684 := \mathbf{973368}$
 $44344 \times 11 + 11 \times 44344 = 487784 + 487784 := \mathbf{975568}$
 $11111 \times 44 + 44 \times 11111 = 488884 + 488884 := \mathbf{977768}$
 $22222 \times 22 + 22 \times 22222 = 488884 + 488884 := \mathbf{977768}$
 $44444 \times 11 + 11 \times 44444 = 488884 + 488884 := \mathbf{977768}$
 $44544 \times 11 + 11 \times 44544 = 489984 + 489984 := \mathbf{979968}$
 $45054 \times 11 + 11 \times 45054 = 495594 + 495594 := \mathbf{991188}$
 $45154 \times 11 + 11 \times 45154 = 496694 + 496694 := \mathbf{993388}$
 $45254 \times 11 + 11 \times 45254 = 497794 + 497794 := \mathbf{995588}$
 $45354 \times 11 + 11 \times 45354 = 498894 + 498894 := \mathbf{997788}$
 $45454 \times 11 + 11 \times 45454 = 499994 + 499994 := \mathbf{999988}$

 $10001 \times 55 + 55 \times 10001 = 550055 + 550055 := \mathbf{1100110}$
 $10101 \times 55 + 55 \times 10101 = 555555 + 555555 := \mathbf{1111110}$
 $52325 \times 11 + 11 \times 52325 = 575575 + 575575 := \mathbf{1151150}$
 $52425 \times 11 + 11 \times 52425 = 576675 + 576675 := \mathbf{1153350}$
 $52525 \times 11 + 11 \times 52525 = 577775 + 577775 := \mathbf{1155550}$

$52625 \times 11 + 11 \times 52625 = 578875 + 578875 := \mathbf{1157750}$
 $52725 \times 11 + 11 \times 52725 = 579975 + 579975 := \mathbf{1159950}$
 $53035 \times 11 + 11 \times 53035 = 583385 + 583385 := \mathbf{1166770}$
 $53135 \times 11 + 11 \times 53135 = 584485 + 584485 := \mathbf{1168970}$
 $53235 \times 11 + 11 \times 53235 = 585585 + 585585 := \mathbf{1171170}$
 $53335 \times 11 + 11 \times 53335 = 586685 + 586685 := \mathbf{1173370}$
 $53435 \times 11 + 11 \times 53435 = 587785 + 587785 := \mathbf{1175570}$
 $53535 \times 11 + 11 \times 53535 = 588885 + 588885 := \mathbf{1177770}$
 $53635 \times 11 + 11 \times 53635 = 589985 + 589985 := \mathbf{1179970}$
 $54045 \times 11 + 11 \times 54045 = 594495 + 594495 := \mathbf{1188990}$
 $54145 \times 11 + 11 \times 54145 = 595595 + 595595 := \mathbf{1191190}$
 $54245 \times 11 + 11 \times 54245 = 596695 + 596695 := \mathbf{1193390}$
 $54345 \times 11 + 11 \times 54345 = 597795 + 597795 := \mathbf{1195590}$
 $54445 \times 11 + 11 \times 54445 = 598895 + 598895 := \mathbf{1197790}$
 $54545 \times 11 + 11 \times 54545 = 599995 + 599995 := \mathbf{1199990}$
 $10001 \times 66 + 66 \times 10001 = 660066 + 660066 := \mathbf{1320132}$
 $20002 \times 33 + 33 \times 20002 = 660066 + 660066 := \mathbf{1320132}$
 $30003 \times 22 + 22 \times 30003 = 660066 + 660066 := \mathbf{1320132}$
 $60006 \times 11 + 11 \times 60006 = 660066 + 660066 := \mathbf{1320132}$
 $60106 \times 11 + 11 \times 60106 = 661166 + 661166 := \mathbf{1322332}$
 $30103 \times 22 + 22 \times 30103 = 662266 + 662266 := \mathbf{1324532}$
 $60206 \times 11 + 11 \times 60206 = 662266 + 662266 := \mathbf{1324532}$
 $20102 \times 33 + 33 \times 20102 = 663366 + 663366 := \mathbf{1326732}$
 $60306 \times 11 + 11 \times 60306 = 663366 + 663366 := \mathbf{1326732}$
 $30203 \times 22 + 22 \times 30203 = 664466 + 664466 := \mathbf{1328932}$
 $60406 \times 11 + 11 \times 60406 = 664466 + 664466 := \mathbf{1328932}$
 $60506 \times 11 + 11 \times 60506 = 665566 + 665566 := \mathbf{1331132}$
 $10101 \times 66 + 66 \times 10101 = 666666 + 666666 := \mathbf{1333332}$
 $20202 \times 33 + 33 \times 20202 = 666666 + 666666 := \mathbf{1333332}$
 $30303 \times 22 + 22 \times 30303 = 666666 + 666666 := \mathbf{1333332}$
 $60606 \times 11 + 11 \times 60606 = 666666 + 666666 := \mathbf{1333332}$
 $60706 \times 11 + 11 \times 60706 = 667766 + 667766 := \mathbf{1335532}$
 $30403 \times 22 + 22 \times 30403 = 668866 + 668866 := \mathbf{1337732}$
 $60806 \times 11 + 11 \times 60806 = 668866 + 668866 := \mathbf{1337732}$
 $20302 \times 33 + 33 \times 20302 = 669966 + 669966 := \mathbf{1339932}$
 $60906 \times 11 + 11 \times 60906 = 669966 + 669966 := \mathbf{1339932}$
 $61016 \times 11 + 11 \times 61016 = 671176 + 671176 := \mathbf{1342352}$
 $61116 \times 11 + 11 \times 61116 = 672276 + 672276 := \mathbf{1344552}$
 $61216 \times 11 + 11 \times 61216 = 673376 + 673376 := \mathbf{1346752}$
 $61316 \times 11 + 11 \times 61316 = 674476 + 674476 := \mathbf{1348952}$
 $61416 \times 11 + 11 \times 61416 = 675576 + 675576 := \mathbf{1351152}$

$61516 \times 11 + 11 \times 61516 = 676676 + 676676 := \mathbf{1353352}$
 $61616 \times 11 + 11 \times 61616 = 677776 + 677776 := \mathbf{1355552}$
 $61716 \times 11 + 11 \times 61716 = 678876 + 678876 := \mathbf{1357752}$
 $61816 \times 11 + 11 \times 61816 = 679976 + 679976 := \mathbf{1359952}$
 $31013 \times 22 + 22 \times 31013 = 682286 + 682286 := \mathbf{1364572}$
 $62026 \times 11 + 11 \times 62026 = 682286 + 682286 := \mathbf{1364572}$
 $62126 \times 11 + 11 \times 62126 = 683386 + 683386 := \mathbf{1366772}$
 $31113 \times 22 + 22 \times 31113 = 684486 + 684486 := \mathbf{1368972}$
 $62226 \times 11 + 11 \times 62226 = 684486 + 684486 := \mathbf{1368972}$
 $62326 \times 11 + 11 \times 62326 = 685586 + 685586 := \mathbf{1371172}$
 $31213 \times 22 + 22 \times 31213 = 686686 + 686686 := \mathbf{1373372}$
 $62426 \times 11 + 11 \times 62426 = 686686 + 686686 := \mathbf{1373372}$
 $62526 \times 11 + 11 \times 62526 = 687786 + 687786 := \mathbf{1375572}$
 $31313 \times 22 + 22 \times 31313 = 688886 + 688886 := \mathbf{1377772}$
 $62626 \times 11 + 11 \times 62626 = 688886 + 688886 := \mathbf{1377772}$
 $62726 \times 11 + 11 \times 62726 = 689986 + 689986 := \mathbf{1379972}$
 $21012 \times 33 + 33 \times 21012 = 693396 + 693396 := \mathbf{1386792}$
 $63036 \times 11 + 11 \times 63036 = 693396 + 693396 := \mathbf{1386792}$
 $63136 \times 11 + 11 \times 63136 = 694496 + 694496 := \mathbf{1388992}$
 $63236 \times 11 + 11 \times 63236 = 695596 + 695596 := \mathbf{1391192}$
 $21112 \times 33 + 33 \times 21112 = 696696 + 696696 := \mathbf{1393392}$
 $63336 \times 11 + 11 \times 63336 = 696696 + 696696 := \mathbf{1393392}$
 $63436 \times 11 + 11 \times 63436 = 697796 + 697796 := \mathbf{1395592}$
 $63536 \times 11 + 11 \times 63536 = 698896 + 698896 := \mathbf{1397792}$
 $21212 \times 33 + 33 \times 21212 = 699996 + 699996 := \mathbf{1399992}$
 $63636 \times 11 + 11 \times 63636 = 699996 + 699996 := \mathbf{1399992}$
 $10001 \times 77 + 77 \times 10001 = 770077 + 770077 := \mathbf{1540154}$
 $70007 \times 11 + 11 \times 70007 = 770077 + 770077 := \mathbf{1540154}$
 $70107 \times 11 + 11 \times 70107 = 771177 + 771177 := \mathbf{1542354}$
 $70207 \times 11 + 11 \times 70207 = 772277 + 772277 := \mathbf{1544554}$
 $70307 \times 11 + 11 \times 70307 = 773377 + 773377 := \mathbf{1546754}$
 $70407 \times 11 + 11 \times 70407 = 774477 + 774477 := \mathbf{1548954}$
 $70507 \times 11 + 11 \times 70507 = 775577 + 775577 := \mathbf{1551154}$
 $70607 \times 11 + 11 \times 70607 = 776677 + 776677 := \mathbf{1553354}$
 $10101 \times 77 + 77 \times 10101 = 777777 + 777777 := \mathbf{1555554}$
 $70707 \times 11 + 11 \times 70707 = 777777 + 777777 := \mathbf{1555554}$
 $70807 \times 11 + 11 \times 70807 = 778877 + 778877 := \mathbf{1557754}$
 $70907 \times 11 + 11 \times 70907 = 779977 + 779977 := \mathbf{1559954}$
 $71017 \times 11 + 11 \times 71017 = 781187 + 781187 := \mathbf{1562374}$
 $71117 \times 11 + 11 \times 71117 = 782287 + 782287 := \mathbf{1564574}$
 $71217 \times 11 + 11 \times 71217 = 783387 + 783387 := \mathbf{1566774}$

$71317 \times 11 + 11 \times 71317 = 784487 + 784487 := \mathbf{1568974}$
 $71417 \times 11 + 11 \times 71417 = 785587 + 785587 := \mathbf{1571174}$
 $71517 \times 11 + 11 \times 71517 = 786687 + 786687 := \mathbf{1573374}$
 $71617 \times 11 + 11 \times 71617 = 787787 + 787787 := \mathbf{1575574}$
 $71717 \times 11 + 11 \times 71717 = 788887 + 788887 := \mathbf{1577774}$
 $71817 \times 11 + 11 \times 71817 = 789987 + 789987 := \mathbf{1579974}$
 $72027 \times 11 + 11 \times 72027 = 792297 + 792297 := \mathbf{1584594}$
 $72127 \times 11 + 11 \times 72127 = 793397 + 793397 := \mathbf{1586794}$
 $72227 \times 11 + 11 \times 72227 = 794497 + 794497 := \mathbf{1588994}$
 $72327 \times 11 + 11 \times 72327 = 795597 + 795597 := \mathbf{1591194}$
 $72427 \times 11 + 11 \times 72427 = 796697 + 796697 := \mathbf{1593394}$
 $72527 \times 11 + 11 \times 72527 = 797797 + 797797 := \mathbf{1595594}$
 $72627 \times 11 + 11 \times 72627 = 798897 + 798897 := \mathbf{1597794}$
 $72727 \times 11 + 11 \times 72727 = 799997 + 799997 := \mathbf{1599994}$
 $10001 \times 88 + 88 \times 10001 = 880088 + 880088 := \mathbf{1760176}$
 $20002 \times 44 + 44 \times 20002 = 880088 + 880088 := \mathbf{1760176}$
 $40004 \times 22 + 22 \times 40004 = 880088 + 880088 := \mathbf{1760176}$
 $80008 \times 11 + 11 \times 80008 = 880088 + 880088 := \mathbf{1760176}$
 $80108 \times 11 + 11 \times 80108 = 881188 + 881188 := \mathbf{1762376}$
 $40104 \times 22 + 22 \times 40104 = 882288 + 882288 := \mathbf{1764576}$
 $80208 \times 11 + 11 \times 80208 = 882288 + 882288 := \mathbf{1764576}$
 $80308 \times 11 + 11 \times 80308 = 883388 + 883388 := \mathbf{1766776}$
 $20102 \times 44 + 44 \times 20102 = 884488 + 884488 := \mathbf{1768976}$
 $40204 \times 22 + 22 \times 40204 = 884488 + 884488 := \mathbf{1768976}$
 $80408 \times 11 + 11 \times 80408 = 884488 + 884488 := \mathbf{1768976}$
 $80508 \times 11 + 11 \times 80508 = 885588 + 885588 := \mathbf{1771176}$
 $40304 \times 22 + 22 \times 40304 = 886688 + 886688 := \mathbf{1773376}$
 $80608 \times 11 + 11 \times 80608 = 886688 + 886688 := \mathbf{1773376}$
 $80708 \times 11 + 11 \times 80708 = 887788 + 887788 := \mathbf{1775576}$
 $10101 \times 88 + 88 \times 10101 = 888888 + 888888 := \mathbf{1777776}$
 $20202 \times 44 + 44 \times 20202 = 888888 + 888888 := \mathbf{1777776}$
 $40404 \times 22 + 22 \times 40404 = 888888 + 888888 := \mathbf{1777776}$

$80808 \times 11 + 11 \times 80808 = 888888 + 888888 := \mathbf{1777776}$
 $80908 \times 11 + 11 \times 80908 = 889988 + 889988 := \mathbf{1779976}$
 $81018 \times 11 + 11 \times 81018 = 891198 + 891198 := \mathbf{1782396}$
 $81118 \times 11 + 11 \times 81118 = 892298 + 892298 := \mathbf{1784596}$
 $81218 \times 11 + 11 \times 81218 = 893398 + 893398 := \mathbf{1786796}$
 $81318 \times 11 + 11 \times 81318 = 894498 + 894498 := \mathbf{1788996}$
 $81418 \times 11 + 11 \times 81418 = 895598 + 895598 := \mathbf{1791196}$
 $81518 \times 11 + 11 \times 81518 = 896698 + 896698 := \mathbf{1793396}$
 $81618 \times 11 + 11 \times 81618 = 897798 + 897798 := \mathbf{1795596}$
 $81718 \times 11 + 11 \times 81718 = 898898 + 898898 := \mathbf{1797796}$
 $81818 \times 11 + 11 \times 81818 = 899998 + 899998 := \mathbf{1799996}$
 $10001 \times 99 + 99 \times 10001 = 990099 + 990099 := \mathbf{1980198}$
 $30003 \times 33 + 33 \times 30003 = 990099 + 990099 := \mathbf{1980198}$
 $90009 \times 11 + 11 \times 90009 = 990099 + 990099 := \mathbf{1980198}$
 $90109 \times 11 + 11 \times 90109 = 991199 + 991199 := \mathbf{1982398}$
 $90209 \times 11 + 11 \times 90209 = 992299 + 992299 := \mathbf{1984598}$
 $30103 \times 33 + 33 \times 30103 = 993399 + 993399 := \mathbf{1986798}$
 $90309 \times 11 + 11 \times 90309 = 993399 + 993399 := \mathbf{1986798}$
 $90409 \times 11 + 11 \times 90409 = 994499 + 994499 := \mathbf{1988998}$
 $90509 \times 11 + 11 \times 90509 = 995599 + 995599 := \mathbf{1991198}$
 $30203 \times 33 + 33 \times 30203 = 996699 + 996699 := \mathbf{1993398}$
 $90609 \times 11 + 11 \times 90609 = 996699 + 996699 := \mathbf{1993398}$
 $90709 \times 11 + 11 \times 90709 = 997799 + 997799 := \mathbf{1995598}$
 $90809 \times 11 + 11 \times 90809 = 998899 + 998899 := \mathbf{1997798}$
 $10101 \times 99 + 99 \times 10101 = 999999 + 999999 := \mathbf{1999998}$
 $30303 \times 33 + 33 \times 30303 = 999999 + 999999 := \mathbf{1999998}$
 $90909 \times 11 + 11 \times 90909 = 999999 + 999999 := \mathbf{1999998}$

$55555 \times 99 + 99 \times 55555 = 5499945 + 5499945 := \mathbf{10999890}$
 $99999 \times 55 + 55 \times 99999 = 5499945 + 5499945 := \mathbf{10999890}$
 $70007 \times 88 + 88 \times 70007 = 6160616 + 6160616 := \mathbf{12321232}$
 $80008 \times 77 + 77 \times 80008 = 6160616 + 6160616 := \mathbf{12321232}$

7.2.2 3-Digits Internal Product

$131 \times 111 + 111 \times 131 = 14541 + 14541 := \mathbf{29082}$
 $121 \times 121 + 121 \times 121 = 14641 + 14641 := \mathbf{29282}$
 $151 \times 101 + 101 \times 151 = 15251 + 15251 := \mathbf{30502}$
 $141 \times 111 + 111 \times 141 = 15651 + 15651 := \mathbf{31302}$
 $131 \times 121 + 121 \times 131 = 15851 + 15851 := \mathbf{31702}$
 $161 \times 101 + 101 \times 161 = 16261 + 16261 := \mathbf{32522}$

$151 \times 111 + 111 \times 151 = 16761 + 16761 := \mathbf{33522}$
 $171 \times 101 + 101 \times 171 = 17271 + 17271 := \mathbf{34542}$
 $161 \times 111 + 111 \times 161 = 17871 + 17871 := \mathbf{35742}$
 $181 \times 101 + 101 \times 181 = 18281 + 18281 := \mathbf{36562}$
 $171 \times 111 + 111 \times 171 = 18981 + 18981 := \mathbf{37962}$
 $191 \times 101 + 101 \times 191 = 19291 + 19291 := \mathbf{38582}$

$212 \times 111 + 111 \times 212 = 23532 + 23532 := \mathbf{47064}$
 $222 \times 111 + 111 \times 222 = 24642 + 24642 := \mathbf{49284}$
 $252 \times 101 + 101 \times 252 = 25452 + 25452 := \mathbf{50904}$
 $212 \times 121 + 121 \times 212 = 25652 + 25652 := \mathbf{51304}$
 $232 \times 111 + 111 \times 232 = 25752 + 25752 := \mathbf{51504}$
 $202 \times 131 + 131 \times 202 = 26462 + 26462 := \mathbf{52924}$
 $262 \times 101 + 101 \times 262 = 26462 + 26462 := \mathbf{52924}$
 $222 \times 121 + 121 \times 222 = 26862 + 26862 := \mathbf{53724}$
 $242 \times 111 + 111 \times 242 = 26862 + 26862 := \mathbf{53724}$
 $272 \times 101 + 101 \times 272 = 27472 + 27472 := \mathbf{54944}$
 $212 \times 131 + 131 \times 212 = 27772 + 27772 := \mathbf{55544}$
 $252 \times 111 + 111 \times 252 = 27972 + 27972 := \mathbf{55944}$
 $202 \times 141 + 141 \times 202 = 28482 + 28482 := \mathbf{56964}$
 $282 \times 101 + 101 \times 282 = 28482 + 28482 := \mathbf{56964}$
 $292 \times 101 + 101 \times 292 = 29492 + 29492 := \mathbf{58984}$
 $212 \times 141 + 141 \times 212 = 29892 + 29892 := \mathbf{59784}$
 $303 \times 101 + 101 \times 303 = 30603 + 30603 := \mathbf{61206}$
 $313 \times 101 + 101 \times 313 = 31613 + 31613 := \mathbf{63226}$
 $323 \times 101 + 101 \times 323 = 32623 + 32623 := \mathbf{65246}$
 $303 \times 111 + 111 \times 303 = 33633 + 33633 := \mathbf{67266}$
 $333 \times 101 + 101 \times 333 = 33633 + 33633 := \mathbf{67266}$
 $343 \times 101 + 101 \times 343 = 34643 + 34643 := \mathbf{69286}$
 $313 \times 111 + 111 \times 313 = 34743 + 34743 := \mathbf{69486}$
 $353 \times 101 + 101 \times 353 = 35653 + 35653 := \mathbf{71306}$
 $323 \times 111 + 111 \times 323 = 35853 + 35853 := \mathbf{71706}$
 $303 \times 121 + 121 \times 303 = 36663 + 36663 := \mathbf{73326}$
 $363 \times 101 + 101 \times 363 = 36663 + 36663 := \mathbf{73326}$
 $333 \times 111 + 111 \times 333 = 36963 + 36963 := \mathbf{73926}$
 $373 \times 101 + 101 \times 373 = 37673 + 37673 := \mathbf{75346}$
 $313 \times 121 + 121 \times 313 = 37873 + 37873 := \mathbf{75746}$
 $383 \times 101 + 101 \times 383 = 38683 + 38683 := \mathbf{77366}$
 $303 \times 131 + 131 \times 303 = 39693 + 39693 := \mathbf{79386}$
 $393 \times 101 + 101 \times 393 = 39693 + 39693 := \mathbf{79386}$
 $202 \times 202 + 202 \times 202 = 40804 + 40804 := \mathbf{81608}$
 $404 \times 101 + 101 \times 404 = 40804 + 40804 := \mathbf{81608}$
 $414 \times 101 + 101 \times 414 = 41814 + 41814 := \mathbf{83628}$
 $212 \times 202 + 202 \times 212 = 42824 + 42824 := \mathbf{85648}$
 $424 \times 101 + 101 \times 424 = 42824 + 42824 := \mathbf{85648}$
 $434 \times 101 + 101 \times 434 = 43834 + 43834 := \mathbf{87668}$
 $222 \times 202 + 202 \times 222 = 44844 + 44844 := \mathbf{89688}$
 $404 \times 111 + 111 \times 404 = 44844 + 44844 := \mathbf{89688}$

$444 \times 101 + 101 \times 444 = 44844 + 44844 := \mathbf{89688}$
 $212 \times 212 + 212 \times 212 = 44944 + 44944 := \mathbf{89888}$
 $454 \times 101 + 101 \times 454 = 45854 + 45854 := \mathbf{91708}$
 $414 \times 111 + 111 \times 414 = 45954 + 45954 := \mathbf{91908}$
 $232 \times 202 + 202 \times 232 = 46864 + 46864 := \mathbf{93728}$
 $464 \times 101 + 101 \times 464 = 46864 + 46864 := \mathbf{93728}$
 $474 \times 101 + 101 \times 474 = 47874 + 47874 := \mathbf{95748}$
 $242 \times 202 + 202 \times 242 = 48884 + 48884 := \mathbf{97768}$
 $404 \times 121 + 121 \times 404 = 48884 + 48884 := \mathbf{97768}$
 $484 \times 101 + 101 \times 484 = 48884 + 48884 := \mathbf{97768}$
 $494 \times 101 + 101 \times 494 = 49894 + 49894 := \mathbf{99788}$
 $979 \times 555 + 555 \times 979 = 543345 + 543345 := \mathbf{1086690}$
 $858 \times 707 + 707 \times 858 = 606606 + 606606 := \mathbf{1213212}$
 $888 \times 737 + 737 \times 888 = 654456 + 654456 := \mathbf{1308912}$
 $858 \times 777 + 777 \times 858 = 666666 + 666666 := \mathbf{1333332}$
 $1001 \times 151 + 151 \times 1001 = 151151 + 151151 := \mathbf{302302}$
 $1001 \times 161 + 161 \times 1001 = 161161 + 161161 := \mathbf{322322}$
 $1001 \times 171 + 171 \times 1001 = 171171 + 171171 := \mathbf{342342}$
 $1001 \times 181 + 181 \times 1001 = 181181 + 181181 := \mathbf{362362}$
 $1001 \times 191 + 191 \times 1001 = 191191 + 191191 := \mathbf{382382}$
 $1001 \times 252 + 252 \times 1001 = 252252 + 252252 := \mathbf{504504}$
 $1001 \times 262 + 262 \times 1001 = 262262 + 262262 := \mathbf{524524}$
 $1001 \times 272 + 272 \times 1001 = 272272 + 272272 := \mathbf{544544}$
 $1001 \times 282 + 282 \times 1001 = 282282 + 282282 := \mathbf{564564}$
 $1001 \times 292 + 292 \times 1001 = 292292 + 292292 := \mathbf{584584}$
 $1001 \times 353 + 353 \times 1001 = 353353 + 353353 := \mathbf{706706}$
 $1001 \times 363 + 363 \times 1001 = 363363 + 363363 := \mathbf{726726}$
 $1001 \times 373 + 373 \times 1001 = 373373 + 373373 := \mathbf{746746}$
 $1001 \times 383 + 383 \times 1001 = 383383 + 383383 := \mathbf{766766}$
 $1001 \times 393 + 393 \times 1001 = 393393 + 393393 := \mathbf{786786}$
 $1001 \times 454 + 454 \times 1001 = 454454 + 454454 := \mathbf{908908}$
 $1001 \times 464 + 464 \times 1001 = 464464 + 464464 := \mathbf{928928}$
 $1001 \times 474 + 474 \times 1001 = 474474 + 474474 := \mathbf{948948}$
 $1001 \times 484 + 484 \times 1001 = 484484 + 484484 := \mathbf{968968}$
 $1001 \times 494 + 494 \times 1001 = 494494 + 494494 := \mathbf{988988}$
 $1001 \times 505 + 505 \times 1001 = 505505 + 505505 := \mathbf{1011010}$
 $1001 \times 515 + 515 \times 1001 = 515515 + 515515 := \mathbf{1031030}$
 $1001 \times 525 + 525 \times 1001 = 525525 + 525525 := \mathbf{1051050}$
 $1001 \times 535 + 535 \times 1001 = 535535 + 535535 := \mathbf{1071070}$
 $1001 \times 545 + 545 \times 1001 = 545545 + 545545 := \mathbf{1091090}$

$1001 \times 555 + 555 \times 1001 = 555555 + 555555 := \mathbf{1111110}$
 $1001 \times 565 + 565 \times 1001 = 565565 + 565565 := \mathbf{1131130}$
 $1001 \times 575 + 575 \times 1001 = 575575 + 575575 := \mathbf{1151150}$
 $1001 \times 585 + 585 \times 1001 = 585585 + 585585 := \mathbf{1171170}$
 $1001 \times 595 + 595 \times 1001 = 595595 + 595595 := \mathbf{1191190}$
 $1001 \times 606 + 606 \times 1001 = 606606 + 606606 := \mathbf{1213212}$
 $1001 \times 616 + 616 \times 1001 = 616616 + 616616 := \mathbf{1233232}$
 $1001 \times 626 + 626 \times 1001 = 626626 + 626626 := \mathbf{1253252}$
 $1001 \times 636 + 636 \times 1001 = 636636 + 636636 := \mathbf{1273272}$
 $1001 \times 646 + 646 \times 1001 = 646646 + 646646 := \mathbf{1293292}$
 $1001 \times 656 + 656 \times 1001 = 656656 + 656656 := \mathbf{1313312}$
 $1001 \times 666 + 666 \times 1001 = 666666 + 666666 := \mathbf{1333332}$
 $1001 \times 676 + 676 \times 1001 = 676676 + 676676 := \mathbf{1353352}$
 $1001 \times 686 + 686 \times 1001 = 686686 + 686686 := \mathbf{1373372}$
 $1001 \times 696 + 696 \times 1001 = 696696 + 696696 := \mathbf{1393392}$
 $1001 \times 707 + 707 \times 1001 = 707707 + 707707 := \mathbf{1415414}$
 $1001 \times 717 + 717 \times 1001 = 717717 + 717717 := \mathbf{1435434}$
 $1001 \times 727 + 727 \times 1001 = 727727 + 727727 := \mathbf{1455454}$
 $1001 \times 737 + 737 \times 1001 = 737737 + 737737 := \mathbf{1475474}$
 $1001 \times 747 + 747 \times 1001 = 747747 + 747747 := \mathbf{1495494}$
 $1001 \times 757 + 757 \times 1001 = 757757 + 757757 := \mathbf{1515514}$
 $1001 \times 767 + 767 \times 1001 = 767767 + 767767 := \mathbf{1535534}$
 $1001 \times 777 + 777 \times 1001 = 777777 + 777777 := \mathbf{1555554}$
 $1001 \times 787 + 787 \times 1001 = 787787 + 787787 := \mathbf{1575574}$
 $1001 \times 797 + 797 \times 1001 = 797797 + 797797 := \mathbf{1595594}$
 $1001 \times 808 + 808 \times 1001 = 808808 + 808808 := \mathbf{1617616}$
 $1001 \times 818 + 818 \times 1001 = 818818 + 818818 := \mathbf{1637636}$
 $1001 \times 828 + 828 \times 1001 = 828828 + 828828 := \mathbf{1657656}$
 $1001 \times 838 + 838 \times 1001 = 838838 + 838838 := \mathbf{1677676}$
 $1001 \times 848 + 848 \times 1001 = 848848 + 848848 := \mathbf{1697696}$
 $1001 \times 858 + 858 \times 1001 = 858858 + 858858 := \mathbf{1717716}$
 $1001 \times 868 + 868 \times 1001 = 868868 + 868868 := \mathbf{1737736}$
 $1001 \times 878 + 878 \times 1001 = 878878 + 878878 := \mathbf{1757756}$
 $1001 \times 888 + 888 \times 1001 = 888888 + 888888 := \mathbf{1777776}$
 $1001 \times 898 + 898 \times 1001 = 898898 + 898898 := \mathbf{1797796}$
 $1001 \times 909 + 909 \times 1001 = 909909 + 909909 := \mathbf{1819818}$
 $1001 \times 919 + 919 \times 1001 = 919919 + 919919 := \mathbf{1839838}$
 $1001 \times 929 + 929 \times 1001 = 929929 + 929929 := \mathbf{1859858}$
 $1001 \times 939 + 939 \times 1001 = 939939 + 939939 := \mathbf{1879878}$
 $1001 \times 949 + 949 \times 1001 = 949949 + 949949 := \mathbf{1899898}$
 $1001 \times 959 + 959 \times 1001 = 959959 + 959959 := \mathbf{1919918}$

$1001 \times 969 + 969 \times 1001 = 969969 + 969969 := \mathbf{1939938}$
 $1001 \times 979 + 979 \times 1001 = 979979 + 979979 := \mathbf{1959958}$
 $1001 \times 989 + 989 \times 1001 = 989989 + 989989 := \mathbf{1979978}$
 $1001 \times 999 + 999 \times 1001 = 999999 + 999999 := \mathbf{1999998}$

$1221 \times 101 + 101 \times 1221 = 123321 + 123321 := \mathbf{246642}$
 $1221 \times 111 + 111 \times 1221 = 135531 + 135531 := \mathbf{271062}$
 $1111 \times 131 + 131 \times 1111 = 145541 + 145541 := \mathbf{291082}$
 $1441 \times 101 + 101 \times 1441 = 145541 + 145541 := \mathbf{291082}$
 $1221 \times 121 + 121 \times 1221 = 147741 + 147741 := \mathbf{295482}$
 $1331 \times 111 + 111 \times 1331 = 147741 + 147741 := \mathbf{295482}$
 $1111 \times 141 + 141 \times 1111 = 156651 + 156651 := \mathbf{313302}$
 $1551 \times 101 + 101 \times 1551 = 156651 + 156651 := \mathbf{313302}$
 $1221 \times 131 + 131 \times 1221 = 159951 + 159951 := \mathbf{319902}$
 $1441 \times 111 + 111 \times 1441 = 159951 + 159951 := \mathbf{319902}$
 $1111 \times 151 + 151 \times 1111 = 167761 + 167761 := \mathbf{335522}$
 $1661 \times 101 + 101 \times 1661 = 167761 + 167761 := \mathbf{335522}$
 $1111 \times 161 + 161 \times 1111 = 178871 + 178871 := \mathbf{357742}$
 $1771 \times 101 + 101 \times 1771 = 178871 + 178871 := \mathbf{357742}$
 $1111 \times 171 + 171 \times 1111 = 189981 + 189981 := \mathbf{379962}$
 $1881 \times 101 + 101 \times 1881 = 189981 + 189981 := \mathbf{379962}$
 $1111 \times 202 + 202 \times 1111 = 224422 + 224422 := \mathbf{448844}$
 $1111 \times 212 + 212 \times 1111 = 235532 + 235532 := \mathbf{471064}$
 $2332 \times 101 + 101 \times 2332 = 235532 + 235532 := \mathbf{471064}$
 $1111 \times 222 + 222 \times 1111 = 246642 + 246642 := \mathbf{493284}$
 $1221 \times 202 + 202 \times 1221 = 246642 + 246642 := \mathbf{493284}$
 $2222 \times 111 + 111 \times 2222 = 246642 + 246642 := \mathbf{493284}$
 $2442 \times 101 + 101 \times 2442 = 246642 + 246642 := \mathbf{493284}$
 $2112 \times 121 + 121 \times 2112 = 255552 + 255552 := \mathbf{511104}$
 $1111 \times 232 + 232 \times 1111 = 257752 + 257752 := \mathbf{515504}$
 $2552 \times 101 + 101 \times 2552 = 257752 + 257752 := \mathbf{515504}$
 $1221 \times 212 + 212 \times 1221 = 258852 + 258852 := \mathbf{517704}$
 $2332 \times 111 + 111 \times 2332 = 258852 + 258852 := \mathbf{517704}$
 $2002 \times 131 + 131 \times 2002 = 262262 + 262262 := \mathbf{524524}$
 $1111 \times 242 + 242 \times 1111 = 268862 + 268862 := \mathbf{537724}$
 $1331 \times 202 + 202 \times 1331 = 268862 + 268862 := \mathbf{537724}$
 $2222 \times 121 + 121 \times 2222 = 268862 + 268862 := \mathbf{537724}$
 $2662 \times 101 + 101 \times 2662 = 268862 + 268862 := \mathbf{537724}$
 $2112 \times 131 + 131 \times 2112 = 276672 + 276672 := \mathbf{553344}$
 $1111 \times 252 + 252 \times 1111 = 279972 + 279972 := \mathbf{559944}$
 $2772 \times 101 + 101 \times 2772 = 279972 + 279972 := \mathbf{559944}$

$2002 \times 141 + 141 \times 2002 = 282282 + 282282 := \mathbf{564564}$
 $2112 \times 141 + 141 \times 2112 = 297792 + 297792 := \mathbf{595584}$
 $3113 \times 101 + 101 \times 3113 = 314413 + 314413 := \mathbf{628826}$
 $3223 \times 101 + 101 \times 3223 = 325523 + 325523 := \mathbf{651046}$
 $1111 \times 303 + 303 \times 1111 = 336633 + 336633 := \mathbf{673266}$
 $3333 \times 101 + 101 \times 3333 = 336633 + 336633 := \mathbf{673266}$
 $3113 \times 111 + 111 \times 3113 = 345543 + 345543 := \mathbf{691086}$
 $1111 \times 313 + 313 \times 1111 = 347743 + 347743 := \mathbf{695486}$
 $3443 \times 101 + 101 \times 3443 = 347743 + 347743 := \mathbf{695486}$
 $3223 \times 111 + 111 \times 3223 = 357753 + 357753 := \mathbf{715506}$
 $1111 \times 323 + 323 \times 1111 = 358853 + 358853 := \mathbf{717706}$
 $3553 \times 101 + 101 \times 3553 = 358853 + 358853 := \mathbf{717706}$
 $3003 \times 121 + 121 \times 3003 = 363363 + 363363 := \mathbf{726726}$
 $1111 \times 333 + 333 \times 1111 = 369963 + 369963 := \mathbf{739926}$
 $1221 \times 303 + 303 \times 1221 = 369963 + 369963 := \mathbf{739926}$
 $3333 \times 111 + 111 \times 3333 = 369963 + 369963 := \mathbf{739926}$
 $3663 \times 101 + 101 \times 3663 = 369963 + 369963 := \mathbf{739926}$
 $3113 \times 121 + 121 \times 3113 = 376673 + 376673 := \mathbf{753346}$
 $3223 \times 121 + 121 \times 3223 = 389983 + 389983 := \mathbf{779966}$
 $3003 \times 131 + 131 \times 3003 = 393393 + 393393 := \mathbf{786786}$
 $4114 \times 101 + 101 \times 4114 = 415514 + 415514 := \mathbf{831028}$
 $2112 \times 202 + 202 \times 2112 = 426624 + 426624 := \mathbf{853248}$
 $4224 \times 101 + 101 \times 4224 = 426624 + 426624 := \mathbf{853248}$
 $2112 \times 212 + 212 \times 2112 = 447744 + 447744 := \mathbf{895488}$
 $1111 \times 404 + 404 \times 1111 = 448844 + 448844 := \mathbf{897688}$
 $2222 \times 202 + 202 \times 2222 = 448844 + 448844 := \mathbf{897688}$
 $4444 \times 101 + 101 \times 4444 = 448844 + 448844 := \mathbf{897688}$
 $4114 \times 111 + 111 \times 4114 = 456654 + 456654 := \mathbf{913308}$
 $1111 \times 414 + 414 \times 1111 = 459954 + 459954 := \mathbf{919908}$
 $4554 \times 101 + 101 \times 4554 = 459954 + 459954 := \mathbf{919908}$
 $2002 \times 232 + 232 \times 2002 = 464464 + 464464 := \mathbf{928928}$
 $2112 \times 222 + 222 \times 2112 = 468864 + 468864 := \mathbf{937728}$
 $4224 \times 111 + 111 \times 4224 = 468864 + 468864 := \mathbf{937728}$
 $2002 \times 242 + 242 \times 2002 = 484484 + 484484 := \mathbf{968968}$
 $4004 \times 121 + 121 \times 4004 = 484484 + 484484 := \mathbf{968968}$
 $2112 \times 232 + 232 \times 2112 = 489984 + 489984 := \mathbf{979968}$
 $4114 \times 121 + 121 \times 4114 = 497794 + 497794 := \mathbf{995588}$
 $4334 \times 101 + 101 \times 4334 = 437734 + 437734 := \mathbf{875468}$

 $5005 \times 101 + 101 \times 5005 = 505505 + 505505 := \mathbf{1011010}$
 $5115 \times 101 + 101 \times 5115 = 516615 + 516615 := \mathbf{1033230}$

$5225 \times 101 + 101 \times 5225 = 527725 + 527725 := \mathbf{1055450}$
 $5335 \times 101 + 101 \times 5335 = 538835 + 538835 := \mathbf{1077670}$
 $5445 \times 101 + 101 \times 5445 = 549945 + 549945 := \mathbf{1099890}$
 $5005 \times 111 + 111 \times 5005 = 555555 + 555555 := \mathbf{1111110}$
 $5115 \times 111 + 111 \times 5115 = 567765 + 567765 := \mathbf{1135530}$
 $5225 \times 111 + 111 \times 5225 = 579975 + 579975 := \mathbf{1159950}$
 $2002 \times 303 + 303 \times 2002 = 606606 + 606606 := \mathbf{1213212}$
 $3003 \times 202 + 202 \times 3003 = 606606 + 606606 := \mathbf{1213212}$
 $6006 \times 101 + 101 \times 6006 = 606606 + 606606 := \mathbf{1213212}$
 $6116 \times 101 + 101 \times 6116 = 617716 + 617716 := \mathbf{1235432}$
 $2002 \times 313 + 313 \times 2002 = 626626 + 626626 := \mathbf{1253252}$
 $3113 \times 202 + 202 \times 3113 = 628826 + 628826 := \mathbf{1257652}$
 $6226 \times 101 + 101 \times 6226 = 628826 + 628826 := \mathbf{1257652}$
 $3003 \times 212 + 212 \times 3003 = 636636 + 636636 := \mathbf{1273272}$
 $2112 \times 303 + 303 \times 2112 = 639936 + 639936 := \mathbf{1279872}$
 $6336 \times 101 + 101 \times 6336 = 639936 + 639936 := \mathbf{1279872}$
 $2002 \times 323 + 323 \times 2002 = 646646 + 646646 := \mathbf{1293292}$
 $3113 \times 212 + 212 \times 3113 = 659956 + 659956 := \mathbf{1319912}$
 $2002 \times 333 + 333 \times 2002 = 666666 + 666666 := \mathbf{1333332}$
 $3003 \times 222 + 222 \times 3003 = 666666 + 666666 := \mathbf{1333332}$
 $6006 \times 111 + 111 \times 6006 = 666666 + 666666 := \mathbf{1333332}$
 $6116 \times 111 + 111 \times 6116 = 678876 + 678876 := \mathbf{1357752}$
 $2002 \times 343 + 343 \times 2002 = 686686 + 686686 := \mathbf{1373372}$
 $3003 \times 232 + 232 \times 3003 = 696696 + 696696 := \mathbf{1393392}$
 $7007 \times 101 + 101 \times 7007 = 707707 + 707707 := \mathbf{1415414}$
 $7117 \times 101 + 101 \times 7117 = 718817 + 718817 := \mathbf{1437634}$
 $7227 \times 101 + 101 \times 7227 = 729927 + 729927 := \mathbf{1459854}$
 $7007 \times 111 + 111 \times 7007 = 777777 + 777777 := \mathbf{1555554}$
 $7117 \times 111 + 111 \times 7117 = 789987 + 789987 := \mathbf{1579974}$
 $2002 \times 404 + 404 \times 2002 = 808808 + 808808 := \mathbf{1617616}$
 $4004 \times 202 + 202 \times 4004 = 808808 + 808808 := \mathbf{1617616}$
 $8008 \times 101 + 101 \times 8008 = 808808 + 808808 := \mathbf{1617616}$
 $8118 \times 101 + 101 \times 8118 = 819918 + 819918 := \mathbf{1639836}$
 $2002 \times 414 + 414 \times 2002 = 828828 + 828828 := \mathbf{1657656}$
 $2002 \times 424 + 424 \times 2002 = 848848 + 848848 := \mathbf{1697696}$
 $4004 \times 212 + 212 \times 4004 = 848848 + 848848 := \mathbf{1697696}$
 $2002 \times 434 + 434 \times 2002 = 868868 + 868868 := \mathbf{1737736}$
 $2002 \times 444 + 444 \times 2002 = 888888 + 888888 := \mathbf{1777776}$
 $4004 \times 222 + 222 \times 4004 = 888888 + 888888 := \mathbf{1777776}$
 $8008 \times 111 + 111 \times 8008 = 888888 + 888888 := \mathbf{1777776}$
 $3003 \times 303 + 303 \times 3003 = 909909 + 909909 := \mathbf{1819818}$

$$\begin{aligned}
9009 \times 101 + 101 \times 9009 &= 909909 + 909909 := \mathbf{1819818} & 11711 \times 111 + 111 \times 11711 &= 1299921 + 1299921 := \mathbf{2599842} \\
3003 \times 313 + 313 \times 3003 &= 939939 + 939939 := \mathbf{1879878} & 13031 \times 101 + 101 \times 13031 &= 1316131 + 1316131 := \mathbf{2632262} \\
3003 \times 323 + 323 \times 3003 &= 969969 + 969969 := \mathbf{1939938} & 13131 \times 101 + 101 \times 13131 &= 1326231 + 1326231 := \mathbf{2652462} \\
3003 \times 333 + 333 \times 3003 &= 999999 + 999999 := \mathbf{1999998} & 10201 \times 131 + 131 \times 10201 &= 1336331 + 1336331 := \mathbf{2672662} \\
9009 \times 111 + 111 \times 9009 &= 999999 + 999999 := \mathbf{1999998} & 13231 \times 101 + 101 \times 13231 &= 1336331 + 1336331 := \mathbf{2672662} \\
5335 \times 969 + 969 \times 5335 &= 5169615 + 5169615 := \mathbf{10339230} & 12121 \times 111 + 111 \times 12121 &= 1345431 + 1345431 := \mathbf{2690862} \\
9119 \times 575 + 575 \times 9119 &= 5243425 + 5243425 := \mathbf{10486850} & 13331 \times 101 + 101 \times 13331 &= 1346431 + 1346431 := \mathbf{2692862} \\
5555 \times 979 + 979 \times 5555 &= 5438345 + 5438345 := \mathbf{10876690} & 10301 \times 131 + 131 \times 10301 &= 1349431 + 1349431 := \mathbf{2698862} \\
8558 \times 707 + 707 \times 8558 &= 6050506 + 6050506 := \mathbf{12101012} & 11211 \times 121 + 121 \times 11211 &= 1356531 + 1356531 := \mathbf{2713062} \\
7227 \times 898 + 898 \times 7227 &= 6489846 + 6489846 := \mathbf{12979692} & 12221 \times 111 + 111 \times 12221 &= 1356531 + 1356531 := \mathbf{2713062} \\
10401 \times 101 + 101 \times 10401 &= 1050501 + 1050501 := \mathbf{2101002} & 13431 \times 101 + 101 \times 13431 &= 1356531 + 1356531 := \mathbf{2713062} \\
10501 \times 101 + 101 \times 10501 &= 1060601 + 1060601 := \mathbf{2121202} & 13531 \times 101 + 101 \times 13531 &= 1366631 + 1366631 := \mathbf{2733262} \\
10601 \times 101 + 101 \times 10601 &= 1070701 + 1070701 := \mathbf{2141402} & 12321 \times 111 + 111 \times 12321 &= 1367631 + 1367631 := \mathbf{2735262} \\
10701 \times 101 + 101 \times 10701 &= 1080801 + 1080801 := \mathbf{2161602} & 11311 \times 121 + 121 \times 11311 &= 1368631 + 1368631 := \mathbf{2737262} \\
10801 \times 101 + 101 \times 10801 &= 1090901 + 1090901 := \mathbf{2181802} & 13631 \times 101 + 101 \times 13631 &= 1376731 + 1376731 := \mathbf{2753462} \\
11211 \times 101 + 101 \times 11211 &= 1132311 + 1132311 := \mathbf{2264622} & 12421 \times 111 + 111 \times 12421 &= 1378731 + 1378731 := \mathbf{2757462} \\
11411 \times 101 + 101 \times 11411 &= 1152511 + 1152511 := \mathbf{2305022} & 13731 \times 101 + 101 \times 13731 &= 1386831 + 1386831 := \mathbf{2773662} \\
10401 \times 111 + 111 \times 10401 &= 1154511 + 1154511 := \mathbf{2309022} & 12521 \times 111 + 111 \times 12521 &= 1389831 + 1389831 := \mathbf{2779662} \\
11511 \times 101 + 101 \times 11511 &= 1162611 + 1162611 := \mathbf{2325222} & 13831 \times 101 + 101 \times 13831 &= 1396931 + 1396931 := \mathbf{2793862} \\
10501 \times 111 + 111 \times 10501 &= 1165611 + 1165611 := \mathbf{2331222} & 14041 \times 101 + 101 \times 14041 &= 1418141 + 1418141 := \mathbf{2836282} \\
11611 \times 101 + 101 \times 11611 &= 1172711 + 1172711 := \mathbf{2345422} & 14141 \times 101 + 101 \times 14141 &= 1428241 + 1428241 := \mathbf{2856482} \\
10601 \times 111 + 111 \times 10601 &= 1176711 + 1176711 := \mathbf{2353422} & 10201 \times 141 + 141 \times 10201 &= 1438341 + 1438341 := \mathbf{2876682} \\
11711 \times 101 + 101 \times 11711 &= 1182811 + 1182811 := \mathbf{2365622} & 14241 \times 101 + 101 \times 14241 &= 1438341 + 1438341 := \mathbf{2876682} \\
10701 \times 111 + 111 \times 10701 &= 1187811 + 1187811 := \mathbf{2375622} & 13031 \times 111 + 111 \times 13031 &= 1446441 + 1446441 := \mathbf{2892882} \\
11811 \times 101 + 101 \times 11811 &= 1192911 + 1192911 := \mathbf{2385822} & 14341 \times 101 + 101 \times 14341 &= 1448441 + 1448441 := \mathbf{2896882} \\
10801 \times 111 + 111 \times 10801 &= 1198911 + 1198911 := \mathbf{2397822} & 12021 \times 121 + 121 \times 12021 &= 1454541 + 1454541 := \mathbf{2909082} \\
12221 \times 101 + 101 \times 12221 &= 1234321 + 1234321 := \mathbf{2468642} & 11111 \times 131 + 131 \times 11111 &= 1455541 + 1455541 := \mathbf{2911082} \\
11211 \times 111 + 111 \times 11211 &= 1244421 + 1244421 := \mathbf{2488842} & 13131 \times 111 + 111 \times 13131 &= 1457541 + 1457541 := \mathbf{2915082} \\
10301 \times 121 + 121 \times 10301 &= 1246421 + 1246421 := \mathbf{2492842} & 14441 \times 101 + 101 \times 14441 &= 1458541 + 1458541 := \mathbf{2917082} \\
12421 \times 101 + 101 \times 12421 &= 1254521 + 1254521 := \mathbf{2509042} & 12121 \times 121 + 121 \times 12121 &= 1466641 + 1466641 := \mathbf{2933282} \\
11311 \times 111 + 111 \times 11311 &= 1255521 + 1255521 := \mathbf{2511042} & 11211 \times 131 + 131 \times 11211 &= 1468641 + 1468641 := \mathbf{2937282} \\
10401 \times 121 + 121 \times 10401 &= 1258521 + 1258521 := \mathbf{2517042} & 13231 \times 111 + 111 \times 13231 &= 1468641 + 1468641 := \mathbf{2937282} \\
12521 \times 101 + 101 \times 12521 &= 1264621 + 1264621 := \mathbf{2529242} & 14541 \times 101 + 101 \times 14541 &= 1468641 + 1468641 := \mathbf{2937282} \\
11411 \times 111 + 111 \times 11411 &= 1266621 + 1266621 := \mathbf{2533242} & 12221 \times 121 + 121 \times 12221 &= 1478741 + 1478741 := \mathbf{2957482} \\
12621 \times 101 + 101 \times 12621 &= 1274721 + 1274721 := \mathbf{2549442} & 14641 \times 101 + 101 \times 14641 &= 1478741 + 1478741 := \mathbf{2957482} \\
11511 \times 111 + 111 \times 11511 &= 1277721 + 1277721 := \mathbf{2555442} & 13331 \times 111 + 111 \times 13331 &= 1479741 + 1479741 := \mathbf{2959482} \\
12721 \times 101 + 101 \times 12721 &= 1284821 + 1284821 := \mathbf{2569642} & 14741 \times 101 + 101 \times 14741 &= 1488841 + 1488841 := \mathbf{2977682} \\
11611 \times 111 + 111 \times 11611 &= 1288821 + 1288821 := \mathbf{2577642} & 14841 \times 101 + 101 \times 14841 &= 1498941 + 1498941 := \mathbf{2997882} \\
12821 \times 101 + 101 \times 12821 &= 1294921 + 1294921 := \mathbf{2589842} & 10001 \times 151 + 151 \times 10001 &= 1510151 + 1510151 := \mathbf{3020302} \\
& & 10101 \times 151 + 151 \times 10101 &= 1525251 + 1525251 := \mathbf{3050502} \\
& & 11011 \times 141 + 141 \times 11011 &= 1552551 + 1552551 := \mathbf{3105102}
\end{aligned}$$

$$\begin{aligned}
14041 \times 111 + 111 \times 14041 &= 1558551 + 1558551 := \mathbf{3117102} & 20302 \times 111 + 111 \times 20302 &= 2253522 + 2253522 := \mathbf{4507044} \\
11111 \times 141 + 141 \times 11111 &= 1566651 + 1566651 := \mathbf{3133302} & 22322 \times 101 + 101 \times 22322 &= 2254522 + 2254522 := \mathbf{4509044} \\
14141 \times 111 + 111 \times 14141 &= 1569651 + 1569651 := \mathbf{3139302} & 10201 \times 222 + 222 \times 10201 &= 2264622 + 2264622 := \mathbf{4529244} \\
12021 \times 131 + 131 \times 12021 &= 1574751 + 1574751 := \mathbf{3149502} & 11211 \times 202 + 202 \times 11211 &= 2264622 + 2264622 := \mathbf{4529244} \\
13031 \times 121 + 121 \times 13031 &= 1576751 + 1576751 := \mathbf{3153502} & 20402 \times 111 + 111 \times 20402 &= 2264622 + 2264622 := \mathbf{4529244} \\
12121 \times 131 + 131 \times 12121 &= 1587851 + 1587851 := \mathbf{3175702} & 22422 \times 101 + 101 \times 22422 &= 2264622 + 2264622 := \mathbf{4529244} \\
13131 \times 121 + 121 \times 13131 &= 1588851 + 1588851 := \mathbf{3177702} & 22522 \times 101 + 101 \times 22522 &= 2274722 + 2274722 := \mathbf{4549444} \\
10001 \times 161 + 161 \times 10001 &= 1610161 + 1610161 := \mathbf{3220322} & 20502 \times 111 + 111 \times 20502 &= 2275722 + 2275722 := \mathbf{4551444} \\
10101 \times 161 + 161 \times 10101 &= 1626261 + 1626261 := \mathbf{3252522} & 11311 \times 202 + 202 \times 11311 &= 2284822 + 2284822 := \mathbf{4569644} \\
11011 \times 151 + 151 \times 11011 &= 1662661 + 1662661 := \mathbf{3325322} & 22622 \times 101 + 101 \times 22622 &= 2284822 + 2284822 := \mathbf{4569644} \\
11111 \times 151 + 151 \times 11111 &= 1677761 + 1677761 := \mathbf{3355522} & 10301 \times 222 + 222 \times 10301 &= 2286822 + 2286822 := \mathbf{4573644} \\
12021 \times 141 + 141 \times 12021 &= 1694961 + 1694961 := \mathbf{3389922} & 20602 \times 111 + 111 \times 20602 &= 2286822 + 2286822 := \mathbf{4573644} \\
14041 \times 121 + 121 \times 14041 &= 1698961 + 1698961 := \mathbf{3397922} & 22722 \times 101 + 101 \times 22722 &= 2294922 + 2294922 := \mathbf{4589844} \\
10001 \times 171 + 171 \times 10001 &= 1710171 + 1710171 := \mathbf{3420342} & 20702 \times 111 + 111 \times 20702 &= 2297922 + 2297922 := \mathbf{4595844} \\
10101 \times 171 + 171 \times 10101 &= 1727271 + 1727271 := \mathbf{3454542} & 23032 \times 101 + 101 \times 23032 &= 2326232 + 2326232 := \mathbf{4652464} \\
11011 \times 161 + 161 \times 11011 &= 1772771 + 1772771 := \mathbf{3545542} & 21012 \times 111 + 111 \times 21012 &= 2332332 + 2332332 := \mathbf{4664664} \\
11111 \times 161 + 161 \times 11111 &= 1788871 + 1788871 := \mathbf{3577742} & 23132 \times 101 + 101 \times 23132 &= 2336332 + 2336332 := \mathbf{4672664} \\
10001 \times 181 + 181 \times 10001 &= 1810181 + 1810181 := \mathbf{3620362} & 23232 \times 101 + 101 \times 23232 &= 2346432 + 2346432 := \mathbf{4692864} \\
10101 \times 181 + 181 \times 10101 &= 1828281 + 1828281 := \mathbf{3656562} & 21212 \times 111 + 111 \times 21212 &= 2354532 + 2354532 := \mathbf{4709064} \\
11011 \times 171 + 171 \times 11011 &= 1882881 + 1882881 := \mathbf{3765762} & 11111 \times 212 + 212 \times 11111 &= 2355532 + 2355532 := \mathbf{4711064} \\
11111 \times 171 + 171 \times 11111 &= 1899981 + 1899981 := \mathbf{3799962} & 23332 \times 101 + 101 \times 23332 &= 2356532 + 2356532 := \mathbf{4713064} \\
10001 \times 191 + 191 \times 10001 &= 1910191 + 1910191 := \mathbf{3820382} & 21312 \times 111 + 111 \times 21312 &= 2365632 + 2365632 := \mathbf{4731264} \\
10101 \times 191 + 191 \times 10101 &= 1929291 + 1929291 := \mathbf{3858582} & 10201 \times 232 + 232 \times 10201 &= 2366632 + 2366632 := \mathbf{4733264} \\
11011 \times 181 + 181 \times 11011 &= 1992991 + 1992991 := \mathbf{3985982} & 23432 \times 101 + 101 \times 23432 &= 2366632 + 2366632 := \mathbf{4733264} \\
20302 \times 101 + 101 \times 20302 &= 2050502 + 2050502 := \mathbf{4101004} & 11211 \times 212 + 212 \times 11211 &= 2376732 + 2376732 := \mathbf{4753464} \\
10201 \times 202 + 202 \times 10201 &= 2060602 + 2060602 := \mathbf{4121204} & 21412 \times 111 + 111 \times 21412 &= 2376732 + 2376732 := \mathbf{4753464} \\
20402 \times 101 + 101 \times 20402 &= 2060602 + 2060602 := \mathbf{4121204} & 23532 \times 101 + 101 \times 23532 &= 2376732 + 2376732 := \mathbf{4753464} \\
20502 \times 101 + 101 \times 20502 &= 2070702 + 2070702 := \mathbf{4141404} & 23632 \times 101 + 101 \times 23632 &= 2386832 + 2386832 := \mathbf{4773664} \\
10301 \times 202 + 202 \times 10301 &= 2080802 + 2080802 := \mathbf{4161604} & 21512 \times 111 + 111 \times 21512 &= 2387832 + 2387832 := \mathbf{4775664} \\
20602 \times 101 + 101 \times 20602 &= 2080802 + 2080802 := \mathbf{4161604} & 10301 \times 232 + 232 \times 10301 &= 2389832 + 2389832 := \mathbf{4779664} \\
20702 \times 101 + 101 \times 20702 &= 2090902 + 2090902 := \mathbf{4181804} & 23732 \times 101 + 101 \times 23732 &= 2396932 + 2396932 := \mathbf{4793864} \\
21012 \times 101 + 101 \times 21012 &= 2122212 + 2122212 := \mathbf{4244424} & 11311 \times 212 + 212 \times 11311 &= 2397932 + 2397932 := \mathbf{4795864} \\
21312 \times 101 + 101 \times 21312 &= 2152512 + 2152512 := \mathbf{4305024} & 21612 \times 111 + 111 \times 21612 &= 2398932 + 2398932 := \mathbf{4797864} \\
10201 \times 212 + 212 \times 10201 &= 2162612 + 2162612 := \mathbf{4325224} & 12021 \times 202 + 202 \times 12021 &= 2428242 + 2428242 := \mathbf{4856484} \\
21412 \times 101 + 101 \times 21412 &= 2162612 + 2162612 := \mathbf{4325224} & 24042 \times 101 + 101 \times 24042 &= 2428242 + 2428242 := \mathbf{4856484} \\
21512 \times 101 + 101 \times 21512 &= 2172712 + 2172712 := \mathbf{4345424} & 24142 \times 101 + 101 \times 24142 &= 2438342 + 2438342 := \mathbf{4876684} \\
21612 \times 101 + 101 \times 21612 &= 2182812 + 2182812 := \mathbf{4365624} & 12121 \times 202 + 202 \times 12121 &= 2448442 + 2448442 := \mathbf{4896884} \\
10301 \times 212 + 212 \times 10301 &= 2183812 + 2183812 := \mathbf{4367624} & 24242 \times 101 + 101 \times 24242 &= 2448442 + 2448442 := \mathbf{4896884} \\
21712 \times 101 + 101 \times 21712 &= 2192912 + 2192912 := \mathbf{4385824} & 22122 \times 111 + 111 \times 22122 &= 2455542 + 2455542 := \mathbf{4911084} \\
22122 \times 101 + 101 \times 22122 &= 2234322 + 2234322 := \mathbf{4468644} & 20302 \times 121 + 121 \times 20302 &= 2456542 + 2456542 := \mathbf{4913084} \\
11111 \times 202 + 202 \times 11111 &= 2244422 + 2244422 := \mathbf{4488844} & 24342 \times 101 + 101 \times 24342 &= 2458542 + 2458542 := \mathbf{4917084}
\end{aligned}$$

$$\begin{aligned}
11111 \times 222 + 222 \times 11111 &= 2466642 + 2466642 := \mathbf{4933284} & 22222 \times 121 + 121 \times 22222 &= 2688862 + 2688862 := \mathbf{5377724} \\
22222 \times 111 + 111 \times 22222 &= 2466642 + 2466642 := \mathbf{4933284} & 10001 \times 272 + 272 \times 10001 &= 2720272 + 2720272 := \mathbf{5440544} \\
10201 \times 242 + 242 \times 10201 &= 2468642 + 2468642 := \mathbf{4937284} & 10101 \times 272 + 272 \times 10101 &= 2747472 + 2747472 := \mathbf{5494944} \\
12221 \times 202 + 202 \times 12221 &= 2468642 + 2468642 := \mathbf{4937284} & 21012 \times 131 + 131 \times 21012 &= 2752572 + 2752572 := \mathbf{5505144} \\
20402 \times 121 + 121 \times 20402 &= 2468642 + 2468642 := \mathbf{4937284} & 21112 \times 131 + 131 \times 21112 &= 2765672 + 2765672 := \mathbf{5531344} \\
24442 \times 101 + 101 \times 24442 &= 2468642 + 2468642 := \mathbf{4937284} & 11011 \times 252 + 252 \times 11011 &= 2774772 + 2774772 := \mathbf{5549544} \\
22322 \times 111 + 111 \times 22322 &= 2477742 + 2477742 := \mathbf{4955484} & 21212 \times 131 + 131 \times 21212 &= 2778772 + 2778772 := \mathbf{5557544} \\
24542 \times 101 + 101 \times 24542 &= 2478742 + 2478742 := \mathbf{4957484} & 23032 \times 121 + 121 \times 23032 &= 2786872 + 2786872 := \mathbf{5573744} \\
11211 \times 222 + 222 \times 11211 &= 2488842 + 2488842 := \mathbf{4977684} & 12021 \times 232 + 232 \times 12021 &= 2788872 + 2788872 := \mathbf{5577744} \\
12321 \times 202 + 202 \times 12321 &= 2488842 + 2488842 := \mathbf{4977684} & 23132 \times 121 + 121 \times 23132 &= 2798972 + 2798972 := \mathbf{5597944} \\
22422 \times 111 + 111 \times 22422 &= 2488842 + 2488842 := \mathbf{4977684} & 11111 \times 252 + 252 \times 11111 &= 2799972 + 2799972 := \mathbf{5599944} \\
24642 \times 101 + 101 \times 24642 &= 2488842 + 2488842 := \mathbf{4977684} & 10001 \times 282 + 282 \times 10001 &= 2820282 + 2820282 := \mathbf{5640564} \\
24742 \times 101 + 101 \times 24742 &= 2498942 + 2498942 := \mathbf{4997884} & 20002 \times 141 + 141 \times 20002 &= 2820282 + 2820282 := \mathbf{5640564} \\
22522 \times 111 + 111 \times 22522 &= 2499942 + 2499942 := \mathbf{4999884} & 20102 \times 141 + 141 \times 20102 &= 2834382 + 2834382 := \mathbf{5668764} \\
10001 \times 252 + 252 \times 10001 &= 2520252 + 2520252 := \mathbf{5040504} & 10101 \times 282 + 282 \times 10101 &= 2848482 + 2848482 := \mathbf{5696964} \\
21012 \times 121 + 121 \times 21012 &= 2542452 + 2542452 := \mathbf{5084904} & 20202 \times 141 + 141 \times 20202 &= 2848482 + 2848482 := \mathbf{5696964} \\
10101 \times 252 + 252 \times 10101 &= 2545452 + 2545452 := \mathbf{5090904} & 11011 \times 262 + 262 \times 11011 &= 2884882 + 2884882 := \mathbf{5769764} \\
12021 \times 212 + 212 \times 12021 &= 2548452 + 2548452 := \mathbf{5096904} & 22022 \times 131 + 131 \times 22022 &= 2884882 + 2884882 := \mathbf{5769764} \\
11011 \times 232 + 232 \times 11011 &= 2554552 + 2554552 := \mathbf{5109104} & 22122 \times 131 + 131 \times 22122 &= 2897982 + 2897982 := \mathbf{5795964} \\
21112 \times 121 + 121 \times 21112 &= 2554552 + 2554552 := \mathbf{5109104} & 10001 \times 292 + 292 \times 10001 &= 2920292 + 2920292 := \mathbf{5840584} \\
23032 \times 111 + 111 \times 23032 &= 2556552 + 2556552 := \mathbf{5113104} & 10101 \times 292 + 292 \times 10101 &= 2949492 + 2949492 := \mathbf{5898984} \\
21212 \times 121 + 121 \times 21212 &= 2566652 + 2566652 := \mathbf{5133304} & 21012 \times 141 + 141 \times 21012 &= 2962692 + 2962692 := \mathbf{5925384} \\
23132 \times 111 + 111 \times 23132 &= 2567652 + 2567652 := \mathbf{5135304} & 21112 \times 141 + 141 \times 21112 &= 2976792 + 2976792 := \mathbf{5953584} \\
12121 \times 212 + 212 \times 12121 &= 2569652 + 2569652 := \mathbf{5139304} & 11011 \times 272 + 272 \times 11011 &= 2994992 + 2994992 := \mathbf{5989984} \\
11111 \times 232 + 232 \times 11111 &= 2577752 + 2577752 := \mathbf{5155504} & 30203 \times 101 + 101 \times 30203 &= 3050503 + 3050503 := \mathbf{6101006} \\
21312 \times 121 + 121 \times 21312 &= 2578752 + 2578752 := \mathbf{5157504} & 10101 \times 303 + 303 \times 10101 &= 3060603 + 3060603 := \mathbf{6121206} \\
23232 \times 111 + 111 \times 23232 &= 2578752 + 2578752 := \mathbf{5157504} & 30303 \times 101 + 101 \times 30303 &= 3060603 + 3060603 := \mathbf{6121206} \\
23332 \times 111 + 111 \times 23332 &= 2589852 + 2589852 := \mathbf{5179704} & 30403 \times 101 + 101 \times 30403 &= 3070703 + 3070703 := \mathbf{6141406} \\
10001 \times 262 + 262 \times 10001 &= 2620262 + 2620262 := \mathbf{5240524} & 30503 \times 101 + 101 \times 30503 &= 3080803 + 3080803 := \mathbf{6161606} \\
20002 \times 131 + 131 \times 20002 &= 2620262 + 2620262 := \mathbf{5240524} & 10201 \times 303 + 303 \times 10201 &= 3090903 + 3090903 := \mathbf{6181806} \\
20102 \times 131 + 131 \times 20102 &= 2633362 + 2633362 := \mathbf{5266724} & 30603 \times 101 + 101 \times 30603 &= 3090903 + 3090903 := \mathbf{6181806} \\
10101 \times 262 + 262 \times 10101 &= 2646462 + 2646462 := \mathbf{5292924} & 31013 \times 101 + 101 \times 31013 &= 3132313 + 3132313 := \mathbf{6264626} \\
20202 \times 131 + 131 \times 20202 &= 2646462 + 2646462 := \mathbf{5292924} & 31213 \times 101 + 101 \times 31213 &= 3152513 + 3152513 := \mathbf{6305026} \\
20302 \times 131 + 131 \times 20302 &= 2659562 + 2659562 := \mathbf{5319124} & 10101 \times 313 + 313 \times 10101 &= 3161613 + 3161613 := \mathbf{6323226} \\
11011 \times 242 + 242 \times 11011 &= 2664662 + 2664662 := \mathbf{5329324} & 31313 \times 101 + 101 \times 31313 &= 3162613 + 3162613 := \mathbf{6325226} \\
22022 \times 121 + 121 \times 22022 &= 2664662 + 2664662 := \mathbf{5329324} & 31413 \times 101 + 101 \times 31413 &= 3172713 + 3172713 := \mathbf{6345426} \\
12021 \times 222 + 222 \times 12021 &= 2668662 + 2668662 := \mathbf{5337324} & 31513 \times 101 + 101 \times 31513 &= 3182813 + 3182813 := \mathbf{6365626} \\
24042 \times 111 + 111 \times 24042 &= 2668662 + 2668662 := \mathbf{5337324} & 10201 \times 313 + 313 \times 10201 &= 3192913 + 3192913 := \mathbf{6385826} \\
22122 \times 121 + 121 \times 22122 &= 2676762 + 2676762 := \mathbf{5353524} & 31613 \times 101 + 101 \times 31613 &= 3192913 + 3192913 := \mathbf{6385826} \\
24142 \times 111 + 111 \times 24142 &= 2679762 + 2679762 := \mathbf{5359524} & 32023 \times 101 + 101 \times 32023 &= 3234323 + 3234323 := \mathbf{6468646} \\
11111 \times 242 + 242 \times 11111 &= 2688862 + 2688862 := \mathbf{5377724} & 32123 \times 101 + 101 \times 32123 &= 3244423 + 3244423 := \mathbf{6488846}
\end{aligned}$$

$$\begin{aligned}
32223 \times 101 + 101 \times 32223 &= 3254523 + 3254523 := \mathbf{6509046} & 10001 \times 353 + 353 \times 10001 &= 3530353 + 3530353 := \mathbf{7060706} \\
10101 \times 323 + 323 \times 10101 &= 3262623 + 3262623 := \mathbf{6525246} & 32023 \times 111 + 111 \times 32023 &= 3554553 + 3554553 := \mathbf{7109106} \\
32323 \times 101 + 101 \times 32323 &= 3264623 + 3264623 := \mathbf{6529246} & 11011 \times 323 + 323 \times 11011 &= 3556553 + 3556553 := \mathbf{7113106} \\
32423 \times 101 + 101 \times 32423 &= 3274723 + 3274723 := \mathbf{6549446} & 10101 \times 353 + 353 \times 10101 &= 3565653 + 3565653 := \mathbf{7131306} \\
32523 \times 101 + 101 \times 32523 &= 3284823 + 3284823 := \mathbf{6569646} & 32123 \times 111 + 111 \times 32123 &= 3565653 + 3565653 := \mathbf{7131306} \\
10201 \times 323 + 323 \times 10201 &= 3294923 + 3294923 := \mathbf{6589846} & 32223 \times 111 + 111 \times 32223 &= 3576753 + 3576753 := \mathbf{7153506} \\
32623 \times 101 + 101 \times 32623 &= 3294923 + 3294923 := \mathbf{6589846} & 32323 \times 111 + 111 \times 32323 &= 3587853 + 3587853 := \mathbf{7175706} \\
11011 \times 303 + 303 \times 11011 &= 3336333 + 3336333 := \mathbf{6672666} & 11111 \times 323 + 323 \times 11111 &= 3588853 + 3588853 := \mathbf{7177706} \\
33033 \times 101 + 101 \times 33033 &= 3336333 + 3336333 := \mathbf{6672666} & 32423 \times 111 + 111 \times 32423 &= 3598953 + 3598953 := \mathbf{7197906} \\
33133 \times 101 + 101 \times 33133 &= 3346433 + 3346433 := \mathbf{6692866} & 10001 \times 363 + 363 \times 10001 &= 3630363 + 3630363 := \mathbf{7260726} \\
30203 \times 111 + 111 \times 30203 &= 3352533 + 3352533 := \mathbf{6705066} & 30003 \times 121 + 121 \times 30003 &= 3630363 + 3630363 := \mathbf{7260726} \\
33233 \times 101 + 101 \times 33233 &= 3356533 + 3356533 := \mathbf{6713066} & 30103 \times 121 + 121 \times 30103 &= 3642463 + 3642463 := \mathbf{7284926} \\
10101 \times 333 + 333 \times 10101 &= 3363633 + 3363633 := \mathbf{6727266} & 30203 \times 121 + 121 \times 30203 &= 3654563 + 3654563 := \mathbf{7309126} \\
30303 \times 111 + 111 \times 30303 &= 3363633 + 3363633 := \mathbf{6727266} & 10101 \times 363 + 363 \times 10101 &= 3666663 + 3666663 := \mathbf{7333326} \\
11111 \times 303 + 303 \times 11111 &= 3366633 + 3366633 := \mathbf{6733266} & 11011 \times 333 + 333 \times 11011 &= 3666663 + 3666663 := \mathbf{7333326} \\
33333 \times 101 + 101 \times 33333 &= 3366633 + 3366633 := \mathbf{6733266} & 30303 \times 121 + 121 \times 30303 &= 3666663 + 3666663 := \mathbf{7333326} \\
30403 \times 111 + 111 \times 30403 &= 3374733 + 3374733 := \mathbf{6749466} & 33033 \times 111 + 111 \times 33033 &= 3666663 + 3666663 := \mathbf{7333326} \\
33433 \times 101 + 101 \times 33433 &= 3376733 + 3376733 := \mathbf{6753466} & 33133 \times 111 + 111 \times 33133 &= 3677763 + 3677763 := \mathbf{7355526} \\
30503 \times 111 + 111 \times 30503 &= 3385833 + 3385833 := \mathbf{6771666} & 30403 \times 121 + 121 \times 30403 &= 3678763 + 3678763 := \mathbf{7357526} \\
33533 \times 101 + 101 \times 33533 &= 3386833 + 3386833 := \mathbf{6773666} & 33233 \times 111 + 111 \times 33233 &= 3688863 + 3688863 := \mathbf{7377726} \\
10201 \times 333 + 333 \times 10201 &= 3396933 + 3396933 := \mathbf{6793866} & 11111 \times 333 + 333 \times 11111 &= 3699963 + 3699963 := \mathbf{7399926} \\
11211 \times 303 + 303 \times 11211 &= 3396933 + 3396933 := \mathbf{6793866} & 33333 \times 111 + 111 \times 33333 &= 3699963 + 3699963 := \mathbf{7399926} \\
30603 \times 111 + 111 \times 30603 &= 3396933 + 3396933 := \mathbf{6793866} & 10001 \times 373 + 373 \times 10001 &= 3730373 + 3730373 := \mathbf{7460746} \\
33633 \times 101 + 101 \times 33633 &= 3396933 + 3396933 := \mathbf{6793866} & 31013 \times 121 + 121 \times 31013 &= 3752573 + 3752573 := \mathbf{7505146} \\
34043 \times 101 + 101 \times 34043 &= 3438343 + 3438343 := \mathbf{6876686} & 31113 \times 121 + 121 \times 31113 &= 3764673 + 3764673 := \mathbf{7529346} \\
31013 \times 111 + 111 \times 31013 &= 3442443 + 3442443 := \mathbf{6884886} & 10101 \times 373 + 373 \times 10101 &= 3767673 + 3767673 := \mathbf{7535346} \\
11011 \times 313 + 313 \times 11011 &= 3446443 + 3446443 := \mathbf{6892886} & 11011 \times 343 + 343 \times 11011 &= 3776773 + 3776773 := \mathbf{7553546} \\
34143 \times 101 + 101 \times 34143 &= 3448443 + 3448443 := \mathbf{6896886} & 31213 \times 121 + 121 \times 31213 &= 3776773 + 3776773 := \mathbf{7553546} \\
31113 \times 111 + 111 \times 31113 &= 3453543 + 3453543 := \mathbf{6907086} & 34043 \times 111 + 111 \times 34043 &= 3778773 + 3778773 := \mathbf{7557546} \\
34243 \times 101 + 101 \times 34243 &= 3458543 + 3458543 := \mathbf{6917086} & 31313 \times 121 + 121 \times 31313 &= 3788873 + 3788873 := \mathbf{7577746} \\
10101 \times 343 + 343 \times 10101 &= 3464643 + 3464643 := \mathbf{6929286} & 34143 \times 111 + 111 \times 34143 &= 3789873 + 3789873 := \mathbf{7579746} \\
31213 \times 111 + 111 \times 31213 &= 3464643 + 3464643 := \mathbf{6929286} & 10001 \times 383 + 383 \times 10001 &= 3830383 + 3830383 := \mathbf{7660766} \\
34343 \times 101 + 101 \times 34343 &= 3468643 + 3468643 := \mathbf{6937286} & 10101 \times 383 + 383 \times 10101 &= 3868683 + 3868683 := \mathbf{7737366} \\
31313 \times 111 + 111 \times 31313 &= 3475743 + 3475743 := \mathbf{6951486} & 32023 \times 121 + 121 \times 32023 &= 3874783 + 3874783 := \mathbf{7749566} \\
11111 \times 313 + 313 \times 11111 &= 3477743 + 3477743 := \mathbf{6955486} & 11011 \times 353 + 353 \times 11011 &= 3886883 + 3886883 := \mathbf{7773766} \\
34443 \times 101 + 101 \times 34443 &= 3478743 + 3478743 := \mathbf{6957486} & 32123 \times 121 + 121 \times 32123 &= 3886883 + 3886883 := \mathbf{7773766} \\
31413 \times 111 + 111 \times 31413 &= 3486843 + 3486843 := \mathbf{6973686} & 32223 \times 121 + 121 \times 32223 &= 3898983 + 3898983 := \mathbf{7797966} \\
34543 \times 101 + 101 \times 34543 &= 3488843 + 3488843 := \mathbf{6977686} & 10001 \times 393 + 393 \times 10001 &= 3930393 + 3930393 := \mathbf{7860786} \\
31513 \times 111 + 111 \times 31513 &= 3497943 + 3497943 := \mathbf{6995886} & 30003 \times 131 + 131 \times 30003 &= 3930393 + 3930393 := \mathbf{7860786} \\
10201 \times 343 + 343 \times 10201 &= 3498943 + 3498943 := \mathbf{6997886} & 30103 \times 131 + 131 \times 30103 &= 3943493 + 3943493 := \mathbf{7886986} \\
34643 \times 101 + 101 \times 34643 &= 3498943 + 3498943 := \mathbf{6997886} & 30203 \times 131 + 131 \times 30203 &= 3956593 + 3956593 := \mathbf{7913186}
\end{aligned}$$

$$\begin{aligned}
10101 \times 393 + 393 \times 10101 &= 3969693 + 3969693 := \mathbf{7939386} & 21012 \times 212 + 212 \times 21012 &= 4454544 + 4454544 := \mathbf{8909088} \\
30303 \times 131 + 131 \times 30303 &= 3969693 + 3969693 := \mathbf{7939386} & 44144 \times 101 + 101 \times 44144 &= 4458544 + 4458544 := \mathbf{8917088} \\
11011 \times 363 + 363 \times 11011 &= 3996993 + 3996993 := \mathbf{7993986} & 20102 \times 222 + 222 \times 20102 &= 4462644 + 4462644 := \mathbf{8925288} \\
33033 \times 121 + 121 \times 33033 &= 3996993 + 3996993 := \mathbf{7993986} & 40204 \times 111 + 111 \times 40204 &= 4462644 + 4462644 := \mathbf{8925288} \\
40104 \times 101 + 101 \times 40104 &= 4050504 + 4050504 := \mathbf{8101008} & 22122 \times 202 + 202 \times 22122 &= 4468644 + 4468644 := \mathbf{8937288} \\
20102 \times 202 + 202 \times 20102 &= 4060604 + 4060604 := \mathbf{8121208} & 44244 \times 101 + 101 \times 44244 &= 4468644 + 4468644 := \mathbf{8937288} \\
40204 \times 101 + 101 \times 40204 &= 4060604 + 4060604 := \mathbf{8121208} & 40304 \times 111 + 111 \times 40304 &= 4473744 + 4473744 := \mathbf{8947488} \\
40304 \times 101 + 101 \times 40304 &= 4070704 + 4070704 := \mathbf{8141408} & 21112 \times 212 + 212 \times 21112 &= 4475744 + 4475744 := \mathbf{8951488} \\
10101 \times 404 + 404 \times 10101 &= 4080804 + 4080804 := \mathbf{8161608} & 44344 \times 101 + 101 \times 44344 &= 4478744 + 4478744 := \mathbf{8957488} \\
20202 \times 202 + 202 \times 20202 &= 4080804 + 4080804 := \mathbf{8161608} & 10101 \times 444 + 444 \times 10101 &= 4484844 + 4484844 := \mathbf{8969688} \\
40404 \times 101 + 101 \times 40404 &= 4080804 + 4080804 := \mathbf{8161608} & 20202 \times 222 + 222 \times 20202 &= 4484844 + 4484844 := \mathbf{8969688} \\
40504 \times 101 + 101 \times 40504 &= 4090904 + 4090904 := \mathbf{8181808} & 40404 \times 111 + 111 \times 40404 &= 4484844 + 4484844 := \mathbf{8969688} \\
41014 \times 101 + 101 \times 41014 &= 4142414 + 4142414 := \mathbf{8284828} & 11111 \times 404 + 404 \times 11111 &= 4488844 + 4488844 := \mathbf{8977688} \\
41114 \times 101 + 101 \times 41114 &= 4152514 + 4152514 := \mathbf{8305028} & 22222 \times 202 + 202 \times 22222 &= 4488844 + 4488844 := \mathbf{8977688} \\
41214 \times 101 + 101 \times 41214 &= 4162614 + 4162614 := \mathbf{8325228} & 44444 \times 101 + 101 \times 44444 &= 4488844 + 4488844 := \mathbf{8977688} \\
41314 \times 101 + 101 \times 41314 &= 4172714 + 4172714 := \mathbf{8345428} & 40504 \times 111 + 111 \times 40504 &= 4495944 + 4495944 := \mathbf{8991888} \\
10101 \times 414 + 414 \times 10101 &= 4181814 + 4181814 := \mathbf{8363628} & 21212 \times 212 + 212 \times 21212 &= 4496944 + 4496944 := \mathbf{8993888} \\
41414 \times 101 + 101 \times 41414 &= 4182814 + 4182814 := \mathbf{8365628} & 44544 \times 101 + 101 \times 44544 &= 4498944 + 4498944 := \mathbf{8997888} \\
41514 \times 101 + 101 \times 41514 &= 4192914 + 4192914 := \mathbf{8385828} & 10001 \times 454 + 454 \times 10001 &= 4540454 + 4540454 := \mathbf{9080908} \\
42024 \times 101 + 101 \times 42024 &= 4244424 + 4244424 := \mathbf{8488848} & 41014 \times 111 + 111 \times 41014 &= 4552554 + 4552554 := \mathbf{9105108} \\
42124 \times 101 + 101 \times 42124 &= 4254524 + 4254524 := \mathbf{8509048} & 11011 \times 414 + 414 \times 11011 &= 4558554 + 4558554 := \mathbf{9117108} \\
20102 \times 212 + 212 \times 20102 &= 4261624 + 4261624 := \mathbf{8523248} & 41114 \times 111 + 111 \times 41114 &= 4563654 + 4563654 := \mathbf{9127308} \\
21112 \times 202 + 202 \times 21112 &= 4264624 + 4264624 := \mathbf{8529248} & 41214 \times 111 + 111 \times 41214 &= 4574754 + 4574754 := \mathbf{9149508} \\
42224 \times 101 + 101 \times 42224 &= 4264624 + 4264624 := \mathbf{8529248} & 10101 \times 454 + 454 \times 10101 &= 4585854 + 4585854 := \mathbf{9171708} \\
42324 \times 101 + 101 \times 42324 &= 4274724 + 4274724 := \mathbf{8549448} & 41314 \times 111 + 111 \times 41314 &= 4585854 + 4585854 := \mathbf{9171708} \\
10101 \times 424 + 424 \times 10101 &= 4282824 + 4282824 := \mathbf{8565648} & 41414 \times 111 + 111 \times 41414 &= 4596954 + 4596954 := \mathbf{9193908} \\
20202 \times 212 + 212 \times 20202 &= 4282824 + 4282824 := \mathbf{8565648} & 11111 \times 414 + 414 \times 11111 &= 4599954 + 4599954 := \mathbf{9199908} \\
21212 \times 202 + 202 \times 21212 &= 4284824 + 4284824 := \mathbf{8569648} & 10001 \times 464 + 464 \times 10001 &= 4640464 + 4640464 := \mathbf{9280928} \\
42424 \times 101 + 101 \times 42424 &= 4284824 + 4284824 := \mathbf{8569648} & 20002 \times 232 + 232 \times 20002 &= 4640464 + 4640464 := \mathbf{9280928} \\
42524 \times 101 + 101 \times 42524 &= 4294924 + 4294924 := \mathbf{8589848} & 20102 \times 232 + 232 \times 20102 &= 4663664 + 4663664 := \mathbf{9327328} \\
43034 \times 101 + 101 \times 43034 &= 4346434 + 4346434 := \mathbf{8692868} & 21012 \times 222 + 222 \times 21012 &= 4664664 + 4664664 := \mathbf{9329328} \\
43134 \times 101 + 101 \times 43134 &= 4356534 + 4356534 := \mathbf{8713068} & 42024 \times 111 + 111 \times 42024 &= 4664664 + 4664664 := \mathbf{9329328} \\
43234 \times 101 + 101 \times 43234 &= 4366634 + 4366634 := \mathbf{8733268} & 11011 \times 424 + 424 \times 11011 &= 4668664 + 4668664 := \mathbf{9337328} \\
43334 \times 101 + 101 \times 43334 &= 4376734 + 4376734 := \mathbf{8753468} & 22022 \times 212 + 212 \times 22022 &= 4668664 + 4668664 := \mathbf{9337328} \\
10101 \times 434 + 434 \times 10101 &= 4383834 + 4383834 := \mathbf{8767668} & 42124 \times 111 + 111 \times 42124 &= 4675764 + 4675764 := \mathbf{9351528} \\
43434 \times 101 + 101 \times 43434 &= 4386834 + 4386834 := \mathbf{8773668} & 10101 \times 464 + 464 \times 10101 &= 4686864 + 4686864 := \mathbf{9373728} \\
43534 \times 101 + 101 \times 43534 &= 4396934 + 4396934 := \mathbf{8793868} & 20202 \times 232 + 232 \times 20202 &= 4686864 + 4686864 := \mathbf{9373728} \\
11011 \times 404 + 404 \times 11011 &= 4448444 + 4448444 := \mathbf{8896888} & 21112 \times 222 + 222 \times 21112 &= 4686864 + 4686864 := \mathbf{9373728} \\
22022 \times 202 + 202 \times 22022 &= 4448444 + 4448444 := \mathbf{8896888} & 42224 \times 111 + 111 \times 42224 &= 4686864 + 4686864 := \mathbf{9373728} \\
44044 \times 101 + 101 \times 44044 &= 4448444 + 4448444 := \mathbf{8896888} & 22122 \times 212 + 212 \times 22122 &= 4689864 + 4689864 := \mathbf{9379728} \\
40104 \times 111 + 111 \times 40104 &= 4451544 + 4451544 := \mathbf{8903088} & 42324 \times 111 + 111 \times 42324 &= 4697964 + 4697964 := \mathbf{9395928}
\end{aligned}$$

$10001 \times 474 + 474 \times 10001 = 4740474 + 4740474 := \mathbf{9480948}$
 $43034 \times 111 + 111 \times 43034 = 4776774 + 4776774 := \mathbf{9553548}$
 $11011 \times 434 + 434 \times 11011 = 4778774 + 4778774 := \mathbf{9557548}$
 $10101 \times 474 + 474 \times 10101 = 4787874 + 4787874 := \mathbf{9575748}$
 $43134 \times 111 + 111 \times 43134 = 4787874 + 4787874 := \mathbf{9575748}$
 $43234 \times 111 + 111 \times 43234 = 4798974 + 4798974 := \mathbf{9597948}$
 $10001 \times 484 + 484 \times 10001 = 4840484 + 4840484 := \mathbf{9680968}$
 $20002 \times 242 + 242 \times 20002 = 4840484 + 4840484 := \mathbf{9680968}$
 $40004 \times 121 + 121 \times 40004 = 4840484 + 4840484 := \mathbf{9680968}$
 $40104 \times 121 + 121 \times 40104 = 4852584 + 4852584 := \mathbf{9705168}$
 $20102 \times 242 + 242 \times 20102 = 4864684 + 4864684 := \mathbf{9729368}$
 $40204 \times 121 + 121 \times 40204 = 4864684 + 4864684 := \mathbf{9729368}$
 $21012 \times 232 + 232 \times 21012 = 4874784 + 4874784 := \mathbf{9749568}$
 $40304 \times 121 + 121 \times 40304 = 4876784 + 4876784 := \mathbf{9753568}$
 $10101 \times 484 + 484 \times 10101 = 4888884 + 4888884 := \mathbf{9777768}$
 $11011 \times 444 + 444 \times 11011 = 4888884 + 4888884 := \mathbf{9777768}$
 $20202 \times 242 + 242 \times 20202 = 4888884 + 4888884 := \mathbf{9777768}$
 $22022 \times 222 + 222 \times 22022 = 4888884 + 4888884 := \mathbf{9777768}$
 $40404 \times 121 + 121 \times 40404 = 4888884 + 4888884 := \mathbf{9777768}$
 $44044 \times 111 + 111 \times 44044 = 4888884 + 4888884 := \mathbf{9777768}$
 $21112 \times 232 + 232 \times 21112 = 4897984 + 4897984 := \mathbf{9795968}$
 $44144 \times 111 + 111 \times 44144 = 4899984 + 4899984 := \mathbf{9799968}$
 $10001 \times 494 + 494 \times 10001 = 4940494 + 4940494 := \mathbf{9880988}$
 $41014 \times 121 + 121 \times 41014 = 4962694 + 4962694 := \mathbf{9925388}$
 $41114 \times 121 + 121 \times 41114 = 4974794 + 4974794 := \mathbf{9949588}$
 $41214 \times 121 + 121 \times 41214 = 4986894 + 4986894 := \mathbf{9973788}$
 $10101 \times 494 + 494 \times 10101 = 4989894 + 4989894 := \mathbf{9979788}$
 $11011 \times 454 + 454 \times 11011 = 4998994 + 4998994 := \mathbf{9997988}$
 $41314 \times 121 + 121 \times 41314 = 4998994 + 4998994 := \mathbf{9997988}$

$10001 \times 505 + 505 \times 10001 = 5050505 + 5050505 := \mathbf{10101010}$
 $10001 \times 515 + 515 \times 10001 = 5150515 + 5150515 := \mathbf{10301030}$
 $10001 \times 525 + 525 \times 10001 = 5250525 + 5250525 := \mathbf{10501050}$
 $52325 \times 101 + 101 \times 52325 = 5284825 + 5284825 := \mathbf{10569650}$
 $52425 \times 101 + 101 \times 52425 = 5294925 + 5294925 := \mathbf{10589850}$
 $10001 \times 535 + 535 \times 10001 = 5350535 + 5350535 := \mathbf{10701070}$
 $53035 \times 101 + 101 \times 53035 = 5356535 + 5356535 := \mathbf{10713070}$
 $53135 \times 101 + 101 \times 53135 = 5366635 + 5366635 := \mathbf{10733270}$
 $53235 \times 101 + 101 \times 53235 = 5376735 + 5376735 := \mathbf{10753470}$
 $53335 \times 101 + 101 \times 53335 = 5386835 + 5386835 := \mathbf{10773670}$
 $53435 \times 101 + 101 \times 53435 = 5396935 + 5396935 := \mathbf{10793870}$

$10001 \times 545 + 545 \times 10001 = 5450545 + 5450545 := \mathbf{10901090}$
 $54045 \times 101 + 101 \times 54045 = 5458545 + 5458545 := \mathbf{10917090}$
 $54145 \times 101 + 101 \times 54145 = 5468645 + 5468645 := \mathbf{10937290}$
 $54245 \times 101 + 101 \times 54245 = 5478745 + 5478745 := \mathbf{10957490}$
 $54345 \times 101 + 101 \times 54345 = 5488845 + 5488845 := \mathbf{10977690}$
 $54445 \times 101 + 101 \times 54445 = 5498945 + 5498945 := \mathbf{10997890}$
 $10001 \times 555 + 555 \times 10001 = 5550555 + 5550555 := \mathbf{11101110}$
 $10001 \times 565 + 565 \times 10001 = 5650565 + 5650565 := \mathbf{11301130}$
 $10001 \times 575 + 575 \times 10001 = 5750575 + 5750575 := \mathbf{11501150}$
 $52225 \times 111 + 111 \times 52225 = 5796975 + 5796975 := \mathbf{11593950}$
 $10001 \times 585 + 585 \times 10001 = 5850585 + 5850585 := \mathbf{11701170}$
 $53035 \times 111 + 111 \times 53035 = 5886885 + 5886885 := \mathbf{11773770}$
 $53135 \times 111 + 111 \times 53135 = 5897985 + 5897985 := \mathbf{11795970}$
 $10001 \times 595 + 595 \times 10001 = 5950595 + 5950595 := \mathbf{11901190}$
 $54045 \times 111 + 111 \times 54045 = 5998995 + 5998995 := \mathbf{11997990}$
 $10001 \times 606 + 606 \times 10001 = 6060606 + 6060606 := \mathbf{12121212}$
 $20002 \times 303 + 303 \times 20002 = 6060606 + 6060606 := \mathbf{12121212}$
 $30003 \times 202 + 202 \times 30003 = 6060606 + 6060606 := \mathbf{12121212}$
 $60006 \times 101 + 101 \times 60006 = 6060606 + 6060606 := \mathbf{12121212}$
 $60106 \times 101 + 101 \times 60106 = 6070706 + 6070706 := \mathbf{12141412}$
 $30103 \times 202 + 202 \times 30103 = 6080806 + 6080806 := \mathbf{12161612}$
 $60206 \times 101 + 101 \times 60206 = 6080806 + 6080806 := \mathbf{12161612}$
 $20102 \times 303 + 303 \times 20102 = 6090906 + 6090906 := \mathbf{12181812}$
 $60306 \times 101 + 101 \times 60306 = 6090906 + 6090906 := \mathbf{12181812}$
 $10001 \times 616 + 616 \times 10001 = 6160616 + 6160616 := \mathbf{12321232}$
 $61016 \times 101 + 101 \times 61016 = 6162616 + 6162616 := \mathbf{12325232}$
 $61116 \times 101 + 101 \times 61116 = 6172716 + 6172716 := \mathbf{12345432}$
 $61216 \times 101 + 101 \times 61216 = 6182816 + 6182816 := \mathbf{12365632}$
 $61316 \times 101 + 101 \times 61316 = 6192916 + 6192916 := \mathbf{12385832}$
 $10001 \times 626 + 626 \times 10001 = 6260626 + 6260626 := \mathbf{12521252}$
 $20002 \times 313 + 313 \times 20002 = 6260626 + 6260626 := \mathbf{12521252}$
 $31013 \times 202 + 202 \times 31013 = 6264626 + 6264626 := \mathbf{12529252}$
 $62026 \times 101 + 101 \times 62026 = 6264626 + 6264626 := \mathbf{12529252}$
 $62126 \times 101 + 101 \times 62126 = 6274726 + 6274726 := \mathbf{12549452}$
 $31113 \times 202 + 202 \times 31113 = 6284826 + 6284826 := \mathbf{12569652}$
 $62226 \times 101 + 101 \times 62226 = 6284826 + 6284826 := \mathbf{12569652}$
 $20102 \times 313 + 313 \times 20102 = 6291926 + 6291926 := \mathbf{12583852}$
 $62326 \times 101 + 101 \times 62326 = 6294926 + 6294926 := \mathbf{12589852}$
 $10001 \times 636 + 636 \times 10001 = 6360636 + 6360636 := \mathbf{12721272}$
 $30003 \times 212 + 212 \times 30003 = 6360636 + 6360636 := \mathbf{12721272}$
 $21012 \times 303 + 303 \times 21012 = 6366636 + 6366636 := \mathbf{12733272}$

$$\begin{array}{ll}
63036 \times 101 + 101 \times 63036 = 6366636 + 6366636 := \mathbf{12733272} & 30003 \times 232 + 232 \times 30003 = 6960696 + 6960696 := \mathbf{13921392} \\
63136 \times 101 + 101 \times 63136 = 6376736 + 6376736 := \mathbf{12753472} & 30103 \times 232 + 232 \times 30103 = 6983896 + 6983896 := \mathbf{13967792} \\
30103 \times 212 + 212 \times 30103 = 6381836 + 6381836 := \mathbf{12763672} & 21012 \times 333 + 333 \times 21012 = 6996996 + 6996996 := \mathbf{13993992} \\
63236 \times 101 + 101 \times 63236 = 6386836 + 6386836 := \mathbf{12773672} & 63036 \times 111 + 111 \times 63036 = 6996996 + 6996996 := \mathbf{13993992} \\
21112 \times 303 + 303 \times 21112 = 6396936 + 6396936 := \mathbf{12793872} & 10001 \times 707 + 707 \times 10001 = 7070707 + 7070707 := \mathbf{14141414} \\
63336 \times 101 + 101 \times 63336 = 6396936 + 6396936 := \mathbf{12793872} & 70007 \times 101 + 101 \times 70007 = 7070707 + 7070707 := \mathbf{14141414} \\
10001 \times 646 + 646 \times 10001 = 6460646 + 6460646 := \mathbf{12921292} & 70107 \times 101 + 101 \times 70107 = 7080807 + 7080807 := \mathbf{14161614} \\
20002 \times 323 + 323 \times 20002 = 6460646 + 6460646 := \mathbf{12921292} & 70207 \times 101 + 101 \times 70207 = 7090907 + 7090907 := \mathbf{14181814} \\
32023 \times 202 + 202 \times 32023 = 6468646 + 6468646 := \mathbf{12937292} & 10001 \times 717 + 717 \times 10001 = 7170717 + 7170717 := \mathbf{14341434} \\
64046 \times 101 + 101 \times 64046 = 6468646 + 6468646 := \mathbf{12937292} & 71017 \times 101 + 101 \times 71017 = 7172717 + 7172717 := \mathbf{14345434} \\
64146 \times 101 + 101 \times 64146 = 6478746 + 6478746 := \mathbf{12957492} & 71117 \times 101 + 101 \times 71117 = 7182817 + 7182817 := \mathbf{14365634} \\
32123 \times 202 + 202 \times 32123 = 6488846 + 6488846 := \mathbf{12977692} & 71217 \times 101 + 101 \times 71217 = 7192917 + 7192917 := \mathbf{14385834} \\
64246 \times 101 + 101 \times 64246 = 6488846 + 6488846 := \mathbf{12977692} & 10001 \times 727 + 727 \times 10001 = 7270727 + 7270727 := \mathbf{14541454} \\
20102 \times 323 + 323 \times 20102 = 6492946 + 6492946 := \mathbf{12985892} & 72027 \times 101 + 101 \times 72027 = 7274727 + 7274727 := \mathbf{14549454} \\
64346 \times 101 + 101 \times 64346 = 6498946 + 6498946 := \mathbf{12997892} & 72127 \times 101 + 101 \times 72127 = 7284827 + 7284827 := \mathbf{14569654} \\
10001 \times 656 + 656 \times 10001 = 6560656 + 6560656 := \mathbf{13121312} & 72227 \times 101 + 101 \times 72227 = 7294927 + 7294927 := \mathbf{14589854} \\
31013 \times 212 + 212 \times 31013 = 6574756 + 6574756 := \mathbf{13149512} & 10001 \times 737 + 737 \times 10001 = 7370737 + 7370737 := \mathbf{14741474} \\
21012 \times 313 + 313 \times 21012 = 6576756 + 6576756 := \mathbf{13153512} & 73037 \times 101 + 101 \times 73037 = 7376737 + 7376737 := \mathbf{14753474} \\
31113 \times 212 + 212 \times 31113 = 6595956 + 6595956 := \mathbf{13191912} & 73137 \times 101 + 101 \times 73137 = 7386837 + 7386837 := \mathbf{14773674} \\
10001 \times 666 + 666 \times 10001 = 6660666 + 6660666 := \mathbf{13321332} & 73237 \times 101 + 101 \times 73237 = 7396937 + 7396937 := \mathbf{14793874} \\
20002 \times 333 + 333 \times 20002 = 6660666 + 6660666 := \mathbf{13321332} & 10001 \times 747 + 747 \times 10001 = 7470747 + 7470747 := \mathbf{14941494} \\
30003 \times 222 + 222 \times 30003 = 6660666 + 6660666 := \mathbf{13321332} & 74047 \times 101 + 101 \times 74047 = 7478747 + 7478747 := \mathbf{14957494} \\
60006 \times 111 + 111 \times 60006 = 6660666 + 6660666 := \mathbf{13321332} & 74147 \times 101 + 101 \times 74147 = 7488847 + 7488847 := \mathbf{14977694} \\
60106 \times 111 + 111 \times 60106 = 6671766 + 6671766 := \mathbf{13343532} & 74247 \times 101 + 101 \times 74247 = 7498947 + 7498947 := \mathbf{14997894} \\
30103 \times 222 + 222 \times 30103 = 6682866 + 6682866 := \mathbf{13365732} & 10001 \times 757 + 757 \times 10001 = 7570757 + 7570757 := \mathbf{15141514} \\
60206 \times 111 + 111 \times 60206 = 6682866 + 6682866 := \mathbf{13365732} & 10001 \times 767 + 767 \times 10001 = 7670767 + 7670767 := \mathbf{15341534} \\
20102 \times 333 + 333 \times 20102 = 6693966 + 6693966 := \mathbf{13387932} & 10001 \times 777 + 777 \times 10001 = 7770777 + 7770777 := \mathbf{15541554} \\
60306 \times 111 + 111 \times 60306 = 6693966 + 6693966 := \mathbf{13387932} & 70007 \times 111 + 111 \times 70007 = 7770777 + 7770777 := \mathbf{15541554} \\
10001 \times 676 + 676 \times 10001 = 6760676 + 6760676 := \mathbf{13521352} & 70107 \times 111 + 111 \times 70107 = 7781877 + 7781877 := \mathbf{15563754} \\
61016 \times 111 + 111 \times 61016 = 6772776 + 6772776 := \mathbf{13545552} & 70207 \times 111 + 111 \times 70207 = 7792977 + 7792977 := \mathbf{15585954} \\
61116 \times 111 + 111 \times 61116 = 6783876 + 6783876 := \mathbf{13567752} & 10001 \times 787 + 787 \times 10001 = 7870787 + 7870787 := \mathbf{15741574} \\
21012 \times 323 + 323 \times 21012 = 6786876 + 6786876 := \mathbf{13573752} & 71017 \times 111 + 111 \times 71017 = 7882887 + 7882887 := \mathbf{15765774} \\
32023 \times 212 + 212 \times 32023 = 6788876 + 6788876 := \mathbf{13577752} & 71117 \times 111 + 111 \times 71117 = 7893987 + 7893987 := \mathbf{15787974} \\
61216 \times 111 + 111 \times 61216 = 6794976 + 6794976 := \mathbf{13589952} & 10001 \times 797 + 797 \times 10001 = 7970797 + 7970797 := \mathbf{15941594} \\
10001 \times 686 + 686 \times 10001 = 6860686 + 6860686 := \mathbf{13721372} & 72027 \times 111 + 111 \times 72027 = 7994997 + 7994997 := \mathbf{15989994} \\
20002 \times 343 + 343 \times 20002 = 6860686 + 6860686 := \mathbf{13721372} & 10001 \times 808 + 808 \times 10001 = 8080808 + 8080808 := \mathbf{16161616} \\
31013 \times 222 + 222 \times 31013 = 6884886 + 6884886 := \mathbf{13769772} & 20002 \times 404 + 404 \times 20002 = 8080808 + 8080808 := \mathbf{16161616} \\
62026 \times 111 + 111 \times 62026 = 6884886 + 6884886 := \mathbf{13769772} & 40004 \times 202 + 202 \times 40004 = 8080808 + 8080808 := \mathbf{16161616} \\
20102 \times 343 + 343 \times 20102 = 6894986 + 6894986 := \mathbf{13789972} & 80008 \times 101 + 101 \times 80008 = 8080808 + 8080808 := \mathbf{16161616} \\
62126 \times 111 + 111 \times 62126 = 6895986 + 6895986 := \mathbf{13791972} & 80108 \times 101 + 101 \times 80108 = 8090908 + 8090908 := \mathbf{16181816} \\
10001 \times 696 + 696 \times 10001 = 6960696 + 6960696 := \mathbf{13921392} & 10001 \times 818 + 818 \times 10001 = 8180818 + 8180818 := \mathbf{16361636}
\end{array}$$

$$\begin{aligned}
81018 \times 101 + 101 \times 81018 &= 8182818 + 8182818 := \mathbf{16365636} & 10001 \times 909 + 909 \times 10001 &= 9090909 + 9090909 := \mathbf{18181818} \\
81118 \times 101 + 101 \times 81118 &= 8192918 + 8192918 := \mathbf{16385836} & 30003 \times 303 + 303 \times 30003 &= 9090909 + 9090909 := \mathbf{18181818} \\
10001 \times 828 + 828 \times 10001 &= 8280828 + 8280828 := \mathbf{16561656} & 90009 \times 101 + 101 \times 90009 &= 9090909 + 9090909 := \mathbf{18181818} \\
20002 \times 414 + 414 \times 20002 &= 8280828 + 8280828 := \mathbf{16561656} & 10001 \times 919 + 919 \times 10001 &= 9190919 + 9190919 := \mathbf{18381838} \\
41014 \times 202 + 202 \times 41014 &= 8284828 + 8284828 := \mathbf{16569656} & 91019 \times 101 + 101 \times 91019 &= 9192919 + 9192919 := \mathbf{18385838} \\
82028 \times 101 + 101 \times 82028 &= 8284828 + 8284828 := \mathbf{16569656} & 10001 \times 929 + 929 \times 10001 &= 9290929 + 9290929 := \mathbf{18581858} \\
82128 \times 101 + 101 \times 82128 &= 8294928 + 8294928 := \mathbf{16589856} & 92029 \times 101 + 101 \times 92029 &= 9294929 + 9294929 := \mathbf{18589858} \\
10001 \times 838 + 838 \times 10001 &= 8380838 + 8380838 := \mathbf{16761676} & 10001 \times 939 + 939 \times 10001 &= 9390939 + 9390939 := \mathbf{18781878} \\
83038 \times 101 + 101 \times 83038 &= 8386838 + 8386838 := \mathbf{16773676} & 30003 \times 313 + 313 \times 30003 &= 9390939 + 9390939 := \mathbf{18781878} \\
83138 \times 101 + 101 \times 83138 &= 8396938 + 8396938 := \mathbf{16793876} & 31013 \times 303 + 303 \times 31013 &= 9396939 + 9396939 := \mathbf{18793878} \\
10001 \times 848 + 848 \times 10001 &= 8480848 + 8480848 := \mathbf{16961696} & 93039 \times 101 + 101 \times 93039 &= 9396939 + 9396939 := \mathbf{18793878} \\
20002 \times 424 + 424 \times 20002 &= 8480848 + 8480848 := \mathbf{16961696} & 10001 \times 949 + 949 \times 10001 &= 9490949 + 9490949 := \mathbf{18981898} \\
40004 \times 212 + 212 \times 40004 &= 8480848 + 8480848 := \mathbf{16961696} & 94049 \times 101 + 101 \times 94049 &= 9498949 + 9498949 := \mathbf{18997898} \\
21012 \times 404 + 404 \times 21012 &= 8488848 + 8488848 := \mathbf{16977696} & 10001 \times 959 + 959 \times 10001 &= 9590959 + 9590959 := \mathbf{19181918} \\
42024 \times 202 + 202 \times 42024 &= 8488848 + 8488848 := \mathbf{16977696} & 10001 \times 969 + 969 \times 10001 &= 9690969 + 9690969 := \mathbf{19381938} \\
84048 \times 101 + 101 \times 84048 &= 8488848 + 8488848 := \mathbf{16977696} & 30003 \times 323 + 323 \times 30003 &= 9690969 + 9690969 := \mathbf{19381938} \\
84148 \times 101 + 101 \times 84148 &= 8498948 + 8498948 := \mathbf{16997896} & 10001 \times 979 + 979 \times 10001 &= 9790979 + 9790979 := \mathbf{19581958} \\
10001 \times 858 + 858 \times 10001 &= 8580858 + 8580858 := \mathbf{17161716} & 10001 \times 989 + 989 \times 10001 &= 9890989 + 9890989 := \mathbf{19781978} \\
10001 \times 868 + 868 \times 10001 &= 8680868 + 8680868 := \mathbf{17361736} & 10001 \times 999 + 999 \times 10001 &= 9990999 + 9990999 := \mathbf{19981998} \\
20002 \times 434 + 434 \times 20002 &= 8680868 + 8680868 := \mathbf{17361736} & 30003 \times 333 + 333 \times 30003 &= 9990999 + 9990999 := \mathbf{19981998} \\
41014 \times 212 + 212 \times 41014 &= 8694968 + 8694968 := \mathbf{17389936} & 90009 \times 111 + 111 \times 90009 &= 9990999 + 9990999 := \mathbf{19981998} \\
21012 \times 414 + 414 \times 21012 &= 8698968 + 8698968 := \mathbf{17397936} & & \\
10001 \times 878 + 878 \times 10001 &= 8780878 + 8780878 := \mathbf{17561756} & 95359 \times 565 + 565 \times 95359 &= 53877835 + 53877835 := \mathbf{107755670} \\
10001 \times 888 + 888 \times 10001 &= 8880888 + 8880888 := \mathbf{17761776} & 55555 \times 979 + 979 \times 55555 &= 54388345 + 54388345 := \mathbf{108776690} \\
20002 \times 444 + 444 \times 20002 &= 8880888 + 8880888 := \mathbf{17761776} & 55055 \times 999 + 999 \times 55055 &= 54999945 + 54999945 := \mathbf{109999890} \\
40004 \times 222 + 222 \times 40004 &= 8880888 + 8880888 := \mathbf{17761776} & 99099 \times 555 + 555 \times 99099 &= 54999945 + 54999945 := \mathbf{109999890} \\
80008 \times 111 + 111 \times 80008 &= 8880888 + 8880888 := \mathbf{17761776} & 92829 \times 595 + 595 \times 92829 &= 55233255 + 55233255 := \mathbf{110466510} \\
80108 \times 111 + 111 \times 80108 &= 8891988 + 8891988 := \mathbf{17783976} & 70007 \times 858 + 858 \times 70007 &= 60066006 + 60066006 := \mathbf{120132012} \\
10001 \times 898 + 898 \times 10001 &= 8980898 + 8980898 := \mathbf{17961796} & 70707 \times 858 + 858 \times 70707 &= 60666606 + 60666606 := \mathbf{121333212} \\
81018 \times 111 + 111 \times 81018 &= 8992998 + 8992998 := \mathbf{17985996} & &
\end{aligned}$$

7.2.3 4-Digits Internal Product

$$\begin{aligned}
1221 \times 1111 + 1111 \times 1221 &= 1356531 + 1356531 := \mathbf{2713062} & 2222 \times 1111 + 1111 \times 2222 &= 2468642 + 2468642 := \mathbf{4937284} \\
1331 \times 1111 + 1111 \times 1331 &= 1478741 + 1478741 := \mathbf{2957482} & 2552 \times 1001 + 1001 \times 2552 &= 2554552 + 2554552 := \mathbf{5109104} \\
1551 \times 1001 + 1001 \times 1551 &= 1552551 + 1552551 := \mathbf{3105102} & 2112 \times 1221 + 1221 \times 2112 &= 2578752 + 2578752 := \mathbf{5157504} \\
1661 \times 1001 + 1001 \times 1661 &= 1662661 + 1662661 := \mathbf{3325322} & 2002 \times 1331 + 1331 \times 2002 &= 2664662 + 2664662 := \mathbf{5329324} \\
1771 \times 1001 + 1001 \times 1771 &= 1772771 + 1772771 := \mathbf{3545542} & 2662 \times 1001 + 1001 \times 2662 &= 2664662 + 2664662 := \mathbf{5329324} \\
1881 \times 1001 + 1001 \times 1881 &= 1882881 + 1882881 := \mathbf{3765762} & 2772 \times 1001 + 1001 \times 2772 &= 2774772 + 2774772 := \mathbf{5549544} \\
1991 \times 1001 + 1001 \times 1991 &= 1992991 + 1992991 := \mathbf{3985982} & 2002 \times 1441 + 1441 \times 2002 &= 2884882 + 2884882 := \mathbf{5769764} \\
2112 \times 1111 + 1111 \times 2112 &= 2346432 + 2346432 := \mathbf{4692864} & 2882 \times 1001 + 1001 \times 2882 &= 2884882 + 2884882 := \mathbf{5769764}
\end{aligned}$$

$$\begin{aligned}
2992 \times 1001 + 1001 \times 2992 &= 2994992 + 2994992 := \mathbf{5989984} & 10901 \times 1001 + 1001 \times 10901 &= 10911901 + 10911901 := \mathbf{21823802} \\
3003 \times 1001 + 1001 \times 3003 &= 3006003 + 3006003 := \mathbf{6012006} & 11311 \times 1001 + 1001 \times 11311 &= 11322311 + 11322311 := \mathbf{22644622} \\
3113 \times 1001 + 1001 \times 3113 &= 3116113 + 3116113 := \mathbf{6232226} & 11511 \times 1001 + 1001 \times 11511 &= 11522511 + 11522511 := \mathbf{23045022} \\
3223 \times 1001 + 1001 \times 3223 &= 3226223 + 3226223 := \mathbf{6452446} & 10401 \times 1111 + 1111 \times 10401 &= 11555511 + 11555511 := \mathbf{23111022} \\
3003 \times 1111 + 1111 \times 3003 &= 3336333 + 3336333 := \mathbf{6672666} & 11611 \times 1001 + 1001 \times 11611 &= 11622611 + 11622611 := \mathbf{23245222} \\
3333 \times 1001 + 1001 \times 3333 &= 3336333 + 3336333 := \mathbf{6672666} & 10501 \times 1111 + 1111 \times 10501 &= 11666611 + 11666611 := \mathbf{23333222} \\
3443 \times 1001 + 1001 \times 3443 &= 3446443 + 3446443 := \mathbf{6892886} & 11711 \times 1001 + 1001 \times 11711 &= 11722711 + 11722711 := \mathbf{23445422} \\
3113 \times 1111 + 1111 \times 3113 &= 3458543 + 3458543 := \mathbf{6917086} & 10601 \times 1111 + 1111 \times 10601 &= 11777711 + 11777711 := \mathbf{23555422} \\
3553 \times 1001 + 1001 \times 3553 &= 3556553 + 3556553 := \mathbf{7113106} & 11811 \times 1001 + 1001 \times 11811 &= 11822811 + 11822811 := \mathbf{23645622} \\
3003 \times 1221 + 1221 \times 3003 &= 3666663 + 3666663 := \mathbf{7333326} & 10701 \times 1111 + 1111 \times 10701 &= 11888811 + 11888811 := \mathbf{23777622} \\
3663 \times 1001 + 1001 \times 3663 &= 3666663 + 3666663 := \mathbf{7333326} & 11911 \times 1001 + 1001 \times 11911 &= 11922911 + 11922911 := \mathbf{23845822} \\
3773 \times 1001 + 1001 \times 3773 &= 3776773 + 3776773 := \mathbf{7553546} & 10801 \times 1111 + 1111 \times 10801 &= 11999911 + 11999911 := \mathbf{23999822} \\
3883 \times 1001 + 1001 \times 3883 &= 3886883 + 3886883 := \mathbf{7773766} & 12021 \times 1001 + 1001 \times 12021 &= 12033021 + 12033021 := \mathbf{24066042} \\
3003 \times 1331 + 1331 \times 3003 &= 3996993 + 3996993 := \mathbf{7993986} & 12221 \times 1001 + 1001 \times 12221 &= 12233221 + 12233221 := \mathbf{24466442} \\
3993 \times 1001 + 1001 \times 3993 &= 3996993 + 3996993 := \mathbf{7993986} & 11111 \times 1111 + 1111 \times 11111 &= 12344321 + 12344321 := \mathbf{24688642} \\
2002 \times 2002 + 2002 \times 2002 &= 4008004 + 4008004 := \mathbf{8016008} & 12421 \times 1001 + 1001 \times 12421 &= 12433421 + 12433421 := \mathbf{24866842} \\
4004 \times 1001 + 1001 \times 4004 &= 4008004 + 4008004 := \mathbf{8016008} & 10201 \times 1221 + 1221 \times 10201 &= 12455421 + 12455421 := \mathbf{24910842} \\
4114 \times 1001 + 1001 \times 4114 &= 4118114 + 4118114 := \mathbf{8236228} & 11211 \times 1111 + 1111 \times 11211 &= 12455421 + 12455421 := \mathbf{24910842} \\
2112 \times 2002 + 2002 \times 2112 &= 4228224 + 4228224 := \mathbf{8456448} & 12521 \times 1001 + 1001 \times 12521 &= 12533521 + 12533521 := \mathbf{25067042} \\
4224 \times 1001 + 1001 \times 4224 &= 4228224 + 4228224 := \mathbf{8456448} & 11311 \times 1111 + 1111 \times 11311 &= 12566521 + 12566521 := \mathbf{25133042} \\
4334 \times 1001 + 1001 \times 4334 &= 4338334 + 4338334 := \mathbf{8676668} & 10301 \times 1221 + 1221 \times 10301 &= 12577521 + 12577521 := \mathbf{25155042} \\
2222 \times 2002 + 2002 \times 2222 &= 4448444 + 4448444 := \mathbf{8896888} & 12621 \times 1001 + 1001 \times 12621 &= 12633621 + 12633621 := \mathbf{25267242} \\
4004 \times 1111 + 1111 \times 4004 &= 4448444 + 4448444 := \mathbf{8896888} & 11411 \times 1111 + 1111 \times 11411 &= 12677621 + 12677621 := \mathbf{25355242} \\
4444 \times 1001 + 1001 \times 4444 &= 4448444 + 4448444 := \mathbf{8896888} & 10401 \times 1221 + 1221 \times 10401 &= 12699621 + 12699621 := \mathbf{25399242} \\
4554 \times 1001 + 1001 \times 4554 &= 4558554 + 4558554 := \mathbf{9117108} & 12721 \times 1001 + 1001 \times 12721 &= 12733721 + 12733721 := \mathbf{25467442} \\
2332 \times 2002 + 2002 \times 2332 &= 4668664 + 4668664 := \mathbf{9337328} & 11511 \times 1111 + 1111 \times 11511 &= 12788721 + 12788721 := \mathbf{25577442} \\
4664 \times 1001 + 1001 \times 4664 &= 4668664 + 4668664 := \mathbf{9337328} & 12821 \times 1001 + 1001 \times 12821 &= 12833821 + 12833821 := \mathbf{25667642} \\
4774 \times 1001 + 1001 \times 4774 &= 4778774 + 4778774 := \mathbf{9557548} & 11611 \times 1111 + 1111 \times 11611 &= 12899821 + 12899821 := \mathbf{25799642} \\
2442 \times 2002 + 2002 \times 2442 &= 4888884 + 4888884 := \mathbf{9777768} & 12921 \times 1001 + 1001 \times 12921 &= 12933921 + 12933921 := \mathbf{25867842} \\
4004 \times 1221 + 1221 \times 4004 &= 4888884 + 4888884 := \mathbf{9777768} & 13031 \times 1001 + 1001 \times 13031 &= 13044031 + 13044031 := \mathbf{26088062} \\
4884 \times 1001 + 1001 \times 4884 &= 4888884 + 4888884 := \mathbf{9777768} & 13131 \times 1001 + 1001 \times 13131 &= 13144131 + 13144131 := \mathbf{26288262} \\
4994 \times 1001 + 1001 \times 4994 &= 4998994 + 4998994 := \mathbf{9997988} & 13231 \times 1001 + 1001 \times 13231 &= 13244231 + 13244231 := \mathbf{26488462} \\
& & 12021 \times 1111 + 1111 \times 12021 &= 13355331 + 13355331 := \mathbf{26710662} \\
& & 12121 \times 1111 + 1111 \times 12121 &= 13466431 + 13466431 := \mathbf{26932862} \\
& & 13531 \times 1001 + 1001 \times 13531 &= 13544531 + 13544531 := \mathbf{27089062} \\
9779 \times 5555 + 5555 \times 9779 &= 54322345 + 54322345 := \mathbf{108644690} & 11111 \times 1221 + 1221 \times 11111 &= 13566531 + 13566531 := \mathbf{27133062} \\
8888 \times 7337 + 7337 \times 8888 &= 65211256 + 65211256 := \mathbf{130422512} & 10201 \times 1331 + 1331 \times 10201 &= 13577531 + 13577531 := \mathbf{27155062} \\
8558 \times 7777 + 7777 \times 8558 &= 66555566 + 66555566 := \mathbf{133111132} & 12221 \times 1111 + 1111 \times 12221 &= 13577531 + 13577531 := \mathbf{27155062} \\
& & 13631 \times 1001 + 1001 \times 13631 &= 13644631 + 13644631 := \mathbf{27289262} \\
10401 \times 1001 + 1001 \times 10401 &= 10411401 + 10411401 := \mathbf{20822802} & 11211 \times 1221 + 1221 \times 11211 &= 13688631 + 13688631 := \mathbf{27377262} \\
10501 \times 1001 + 1001 \times 10501 &= 10511501 + 10511501 := \mathbf{21023002} & 12321 \times 1111 + 1111 \times 12321 &= 13688631 + 13688631 := \mathbf{27377262} \\
10601 \times 1001 + 1001 \times 10601 &= 10611601 + 10611601 := \mathbf{21223202} & 13731 \times 1001 + 1001 \times 13731 &= 13744731 + 13744731 := \mathbf{27489462} \\
10701 \times 1001 + 1001 \times 10701 &= 10711701 + 10711701 := \mathbf{21423402} & 12421 \times 1111 + 1111 \times 12421 &= 13799731 + 13799731 := \mathbf{27599462} \\
10801 \times 1001 + 1001 \times 10801 &= 10811801 + 10811801 := \mathbf{21623602} & &
\end{aligned}$$

$13831 \times 1001 + 1001 \times 13831 = 13844831 + 13844831 :=$ 27689662	$16661 \times 1001 + 1001 \times 16661 = 16677661 + 16677661 :=$ 33355322
$13931 \times 1001 + 1001 \times 13931 = 13944931 + 13944931 :=$ 27889862	$10101 \times 1661 + 1661 \times 10101 = 16777761 + 16777761 :=$ 33555522
$14041 \times 1001 + 1001 \times 14041 = 14055041 + 14055041 :=$ 28110082	$16761 \times 1001 + 1001 \times 16761 = 16777761 + 16777761 :=$ 33555522
$14141 \times 1001 + 1001 \times 14141 = 14155141 + 14155141 :=$ 28310282	$16861 \times 1001 + 1001 \times 16861 = 16877861 + 16877861 :=$ 33755722
$14241 \times 1001 + 1001 \times 14241 = 14255241 + 14255241 :=$ 28510482	$16961 \times 1001 + 1001 \times 16961 = 16977961 + 16977961 :=$ 33955922
$14341 \times 1001 + 1001 \times 14341 = 14355341 + 14355341 :=$ 28710682	$17071 \times 1001 + 1001 \times 17071 = 17088071 + 17088071 :=$ 34176142
$14441 \times 1001 + 1001 \times 14441 = 14455441 + 14455441 :=$ 28910882	$17171 \times 1001 + 1001 \times 17171 = 17188171 + 17188171 :=$ 34376342
$13031 \times 1111 + 1111 \times 13031 = 14477441 + 14477441 :=$ 28954882	$17271 \times 1001 + 1001 \times 17271 = 17288271 + 17288271 :=$ 34576542
$10101 \times 1441 + 1441 \times 10101 = 14555541 + 14555541 :=$ 29111082	$17371 \times 1001 + 1001 \times 17371 = 17388371 + 17388371 :=$ 34776742
$14541 \times 1001 + 1001 \times 14541 = 14555541 + 14555541 :=$ 29111082	$17471 \times 1001 + 1001 \times 17471 = 17488471 + 17488471 :=$ 34976942
$13131 \times 1111 + 1111 \times 13131 = 14588541 + 14588541 :=$ 29177082	$17571 \times 1001 + 1001 \times 17571 = 17588571 + 17588571 :=$ 35177142
$11011 \times 1331 + 1331 \times 11011 = 14655641 + 14655641 :=$ 29311282	$17671 \times 1001 + 1001 \times 17671 = 17688671 + 17688671 :=$ 35377342
$14641 \times 1001 + 1001 \times 14641 = 14655641 + 14655641 :=$ 29311282	$10001 \times 1771 + 1771 \times 10001 = 17711771 + 17711771 :=$ 35423542
$12021 \times 1221 + 1221 \times 12021 = 14677641 + 14677641 :=$ 29355282	$17771 \times 1001 + 1001 \times 17771 = 17788771 + 17788771 :=$ 35577542
$10201 \times 1441 + 1441 \times 10201 = 14699641 + 14699641 :=$ 29399282	$10101 \times 1771 + 1771 \times 10101 = 17888871 + 17888871 :=$ 35777742
$13231 \times 1111 + 1111 \times 13231 = 14699641 + 14699641 :=$ 29399282	$17871 \times 1001 + 1001 \times 17871 = 17888871 + 17888871 :=$ 35777742
$14741 \times 1001 + 1001 \times 14741 = 14755741 + 14755741 :=$ 29511482	$17971 \times 1001 + 1001 \times 17971 = 17988971 + 17988971 :=$ 35977942
$11111 \times 1331 + 1331 \times 11111 = 14788741 + 14788741 :=$ 29577482	$18081 \times 1001 + 1001 \times 18081 = 18099081 + 18099081 :=$ 36198162
$12121 \times 1221 + 1221 \times 12121 = 14799741 + 14799741 :=$ 29599482	$18181 \times 1001 + 1001 \times 18181 = 18199181 + 18199181 :=$ 36398362
$14841 \times 1001 + 1001 \times 14841 = 14855841 + 14855841 :=$ 29711682	$18281 \times 1001 + 1001 \times 18281 = 18299281 + 18299281 :=$ 36598562
$14941 \times 1001 + 1001 \times 14941 = 14955941 + 14955941 :=$ 29911882	$18381 \times 1001 + 1001 \times 18381 = 18399381 + 18399381 :=$ 36798762
$15051 \times 1001 + 1001 \times 15051 = 15066051 + 15066051 :=$ 30132102	$18481 \times 1001 + 1001 \times 18481 = 18499481 + 18499481 :=$ 36998962
$15151 \times 1001 + 1001 \times 15151 = 15166151 + 15166151 :=$ 30332302	$18581 \times 1001 + 1001 \times 18581 = 18599581 + 18599581 :=$ 37199162
$15251 \times 1001 + 1001 \times 15251 = 15266251 + 15266251 :=$ 30532502	$18681 \times 1001 + 1001 \times 18681 = 18699681 + 18699681 :=$ 37399362
$15351 \times 1001 + 1001 \times 15351 = 15366351 + 15366351 :=$ 30732702	$18781 \times 1001 + 1001 \times 18781 = 18799781 + 18799781 :=$ 37599562
$15451 \times 1001 + 1001 \times 15451 = 15466451 + 15466451 :=$ 30932902	$10001 \times 1881 + 1881 \times 10001 = 18811881 + 18811881 :=$ 37623762
$10001 \times 1551 + 1551 \times 10001 = 15511551 + 15511551 :=$ 31023102	$18881 \times 1001 + 1001 \times 18881 = 18899881 + 18899881 :=$ 37799762
$15551 \times 1001 + 1001 \times 15551 = 15566551 + 15566551 :=$ 31133102	$10101 \times 1881 + 1881 \times 10101 = 18999981 + 18999981 :=$ 37999962
$14041 \times 1111 + 1111 \times 14041 = 15599551 + 15599551 :=$ 31199102	$18981 \times 1001 + 1001 \times 18981 = 18999981 + 18999981 :=$ 37999962
$10101 \times 1551 + 1551 \times 10101 = 15666651 + 15666651 :=$ 31333302	$10001 \times 1991 + 1991 \times 10001 = 19911991 + 19911991 :=$ 39823982
$15651 \times 1001 + 1001 \times 15651 = 15666651 + 15666651 :=$ 31333302	$20302 \times 1001 + 1001 \times 20302 = 20322302 + 20322302 :=$ 40644604
$15751 \times 1001 + 1001 \times 15751 = 15766751 + 15766751 :=$ 31533502	$20402 \times 1001 + 1001 \times 20402 = 20422402 + 20422402 :=$ 40844804
$11011 \times 1441 + 1441 \times 11011 = 15866851 + 15866851 :=$ 31733702	$20502 \times 1001 + 1001 \times 20502 = 20522502 + 20522502 :=$ 41045004
$15851 \times 1001 + 1001 \times 15851 = 15866851 + 15866851 :=$ 31733702	$10301 \times 2002 + 2002 \times 10301 = 20622602 + 20622602 :=$ 41245204
$15951 \times 1001 + 1001 \times 15951 = 15966951 + 15966951 :=$ 31933902	$20602 \times 1001 + 1001 \times 20602 = 20622602 + 20622602 :=$ 41245204
$12021 \times 1331 + 1331 \times 12021 = 15999951 + 15999951 :=$ 31999902	$20702 \times 1001 + 1001 \times 20702 = 20722702 + 20722702 :=$ 41445404
$16061 \times 1001 + 1001 \times 16061 = 16077061 + 16077061 :=$ 32154122	$10401 \times 2002 + 2002 \times 10401 = 20822802 + 20822802 :=$ 41645604
$16161 \times 1001 + 1001 \times 16161 = 16177161 + 16177161 :=$ 32354322	$20802 \times 1001 + 1001 \times 20802 = 20822802 + 20822802 :=$ 41645604
$16261 \times 1001 + 1001 \times 16261 = 16277261 + 16277261 :=$ 32554522	$20902 \times 1001 + 1001 \times 20902 = 20922902 + 20922902 :=$ 41845804
$16361 \times 1001 + 1001 \times 16361 = 16377361 + 16377361 :=$ 32754722	$21012 \times 1001 + 1001 \times 21012 = 21033012 + 21033012 :=$ 42066024
$16461 \times 1001 + 1001 \times 16461 = 16477461 + 16477461 :=$ 32954922	$21512 \times 1001 + 1001 \times 21512 = 21533512 + 21533512 :=$ 43067024
$16561 \times 1001 + 1001 \times 16561 = 16577561 + 16577561 :=$ 33155122	$10201 \times 2112 + 2112 \times 10201 = 21544512 + 21544512 :=$ 43089024
$10001 \times 1661 + 1661 \times 10001 = 16611661 + 16611661 :=$ 33223322	$21612 \times 1001 + 1001 \times 21612 = 21633612 + 21633612 :=$ 43267224

$$\begin{aligned}
21712 \times 1001 + 1001 \times 21712 &= 21733712 + 21733712 := \mathbf{43467424} & 12021 \times 2002 + 2002 \times 12021 &= 24066042 + 24066042 := \mathbf{48132084} \\
10301 \times 2112 + 2112 \times 10301 &= 21755712 + 21755712 := \mathbf{43511424} & 24042 \times 1001 + 1001 \times 24042 &= 24066042 + 24066042 := \mathbf{48132084} \\
21812 \times 1001 + 1001 \times 21812 &= 21833812 + 21833812 := \mathbf{43667624} & 24142 \times 1001 + 1001 \times 24142 &= 24166142 + 24166142 := \mathbf{48332284} \\
21912 \times 1001 + 1001 \times 21912 &= 21933912 + 21933912 := \mathbf{43867824} & 12121 \times 2002 + 2002 \times 12121 &= 24266242 + 24266242 := \mathbf{48532484} \\
10401 \times 2112 + 2112 \times 10401 &= 21966912 + 21966912 := \mathbf{43933824} & 24242 \times 1001 + 1001 \times 24242 &= 24266242 + 24266242 := \mathbf{48532484} \\
11111 \times 2002 + 2002 \times 11111 &= 22244222 + 22244222 := \mathbf{44488444} & 24342 \times 1001 + 1001 \times 24342 &= 24366342 + 24366342 := \mathbf{48732684} \\
20202 \times 1111 + 1111 \times 20202 &= 22444422 + 22444422 := \mathbf{44888844} & 11011 \times 2222 + 2222 \times 11011 &= 24466442 + 24466442 := \mathbf{48932884} \\
22522 \times 1001 + 1001 \times 22522 &= 22544522 + 22544522 := \mathbf{45089044} & 12221 \times 2002 + 2002 \times 12221 &= 24466442 + 24466442 := \mathbf{48932884} \\
20302 \times 1111 + 1111 \times 20302 &= 22555522 + 22555522 := \mathbf{45111044} & 22022 \times 1111 + 1111 \times 22022 &= 24466442 + 24466442 := \mathbf{48932884} \\
11311 \times 2002 + 2002 \times 11311 &= 22644622 + 22644622 := \mathbf{45289244} & 24442 \times 1001 + 1001 \times 24442 &= 24466442 + 24466442 := \mathbf{48932884} \\
22622 \times 1001 + 1001 \times 22622 &= 22644622 + 22644622 := \mathbf{45289244} & 20102 \times 1221 + 1221 \times 20102 &= 24544542 + 24544542 := \mathbf{49089084} \\
10201 \times 2222 + 2222 \times 10201 &= 22666622 + 22666622 := \mathbf{45333244} & 24542 \times 1001 + 1001 \times 24542 &= 24566542 + 24566542 := \mathbf{49133084} \\
20402 \times 1111 + 1111 \times 20402 &= 22666622 + 22666622 := \mathbf{45333244} & 22122 \times 1111 + 1111 \times 22122 &= 24577542 + 24577542 := \mathbf{49155084} \\
22722 \times 1001 + 1001 \times 22722 &= 22744722 + 22744722 := \mathbf{45489444} & 10101 \times 2442 + 2442 \times 10101 &= 24666642 + 24666642 := \mathbf{49333284} \\
20502 \times 1111 + 1111 \times 20502 &= 22777722 + 22777722 := \mathbf{45555444} & 12321 \times 2002 + 2002 \times 12321 &= 24666642 + 24666642 := \mathbf{49333284} \\
11411 \times 2002 + 2002 \times 11411 &= 22844822 + 22844822 := \mathbf{45689644} & 20202 \times 1221 + 1221 \times 20202 &= 24666642 + 24666642 := \mathbf{49333284} \\
22822 \times 1001 + 1001 \times 22822 &= 22844822 + 22844822 := \mathbf{45689644} & 24642 \times 1001 + 1001 \times 24642 &= 24666642 + 24666642 := \mathbf{49333284} \\
10301 \times 2222 + 2222 \times 10301 &= 22888822 + 22888822 := \mathbf{45777644} & 11111 \times 2222 + 2222 \times 11111 &= 24688642 + 24688642 := \mathbf{49377284} \\
20602 \times 1111 + 1111 \times 20602 &= 22888822 + 22888822 := \mathbf{45777644} & 22222 \times 1111 + 1111 \times 22222 &= 24688642 + 24688642 := \mathbf{49377284} \\
22922 \times 1001 + 1001 \times 22922 &= 22944922 + 22944922 := \mathbf{45889844} & 24742 \times 1001 + 1001 \times 24742 &= 24766742 + 24766742 := \mathbf{49533484} \\
20702 \times 1111 + 1111 \times 20702 &= 22999922 + 22999922 := \mathbf{45999844} & 20302 \times 1221 + 1221 \times 20302 &= 24788742 + 24788742 := \mathbf{49577484} \\
23032 \times 1001 + 1001 \times 23032 &= 23055032 + 23055032 := \mathbf{46110064} & 22322 \times 1111 + 1111 \times 22322 &= 24799742 + 24799742 := \mathbf{49599484} \\
23132 \times 1001 + 1001 \times 23132 &= 23155132 + 23155132 := \mathbf{46310264} & 12421 \times 2002 + 2002 \times 12421 &= 24866842 + 24866842 := \mathbf{49733684} \\
11011 \times 2112 + 2112 \times 11011 &= 23255232 + 23255232 := \mathbf{46510464} & 24842 \times 1001 + 1001 \times 24842 &= 24866842 + 24866842 := \mathbf{49733684} \\
23232 \times 1001 + 1001 \times 23232 &= 23255232 + 23255232 := \mathbf{46510464} & 24942 \times 1001 + 1001 \times 24942 &= 24966942 + 24966942 := \mathbf{49933884} \\
21012 \times 1111 + 1111 \times 21012 &= 23344332 + 23344332 := \mathbf{46688664} & 25052 \times 1001 + 1001 \times 25052 &= 25077052 + 25077052 := \mathbf{50154104} \\
23332 \times 1001 + 1001 \times 23332 &= 23355332 + 23355332 := \mathbf{46710664} & 25152 \times 1001 + 1001 \times 25152 &= 25177152 + 25177152 := \mathbf{50354304} \\
21112 \times 1111 + 1111 \times 21112 &= 23455432 + 23455432 := \mathbf{46910864} & 25252 \times 1001 + 1001 \times 25252 &= 25277252 + 25277252 := \mathbf{50554504} \\
23432 \times 1001 + 1001 \times 23432 &= 23455432 + 23455432 := \mathbf{46910864} & 25352 \times 1001 + 1001 \times 25352 &= 25377352 + 25377352 := \mathbf{50754704} \\
11111 \times 2112 + 2112 \times 11111 &= 23466432 + 23466432 := \mathbf{46932864} & 12021 \times 2112 + 2112 \times 12021 &= 25388352 + 25388352 := \mathbf{50776704} \\
10101 \times 2332 + 2332 \times 10101 &= 23555532 + 23555532 := \mathbf{47111064} & 25452 \times 1001 + 1001 \times 25452 &= 25477452 + 25477452 := \mathbf{50954904} \\
23532 \times 1001 + 1001 \times 23532 &= 23555532 + 23555532 := \mathbf{47111064} & 10001 \times 2552 + 2552 \times 10001 &= 25522552 + 25522552 := \mathbf{51045104} \\
21212 \times 1111 + 1111 \times 21212 &= 23566532 + 23566532 := \mathbf{47133064} & 25552 \times 1001 + 1001 \times 25552 &= 25577552 + 25577552 := \mathbf{51155104} \\
23632 \times 1001 + 1001 \times 23632 &= 23655632 + 23655632 := \mathbf{47311264} & 23032 \times 1111 + 1111 \times 23032 &= 25588552 + 25588552 := \mathbf{51177104} \\
11211 \times 2112 + 2112 \times 11211 &= 23677632 + 23677632 := \mathbf{47355264} & 12121 \times 2112 + 2112 \times 12121 &= 25599552 + 25599552 := \mathbf{51199104} \\
21312 \times 1111 + 1111 \times 21312 &= 23677632 + 23677632 := \mathbf{47355264} & 21012 \times 1221 + 1221 \times 21012 &= 25655652 + 25655652 := \mathbf{51311304} \\
23732 \times 1001 + 1001 \times 23732 &= 23755732 + 23755732 := \mathbf{47511464} & 11011 \times 2332 + 2332 \times 11011 &= 25677652 + 25677652 := \mathbf{51355304} \\
10201 \times 2332 + 2332 \times 10201 &= 23788732 + 23788732 := \mathbf{47577464} & 25652 \times 1001 + 1001 \times 25652 &= 25677652 + 25677652 := \mathbf{51355304} \\
21412 \times 1111 + 1111 \times 21412 &= 23788732 + 23788732 := \mathbf{47577464} & 23132 \times 1111 + 1111 \times 23132 &= 25699652 + 25699652 := \mathbf{51399304} \\
23832 \times 1001 + 1001 \times 23832 &= 23855832 + 23855832 := \mathbf{47711664} & 10101 \times 2552 + 2552 \times 10101 &= 25777752 + 25777752 := \mathbf{51555504} \\
11311 \times 2112 + 2112 \times 11311 &= 23888832 + 23888832 := \mathbf{47777664} & 21112 \times 1221 + 1221 \times 21112 &= 25777752 + 25777752 := \mathbf{51555504} \\
21512 \times 1111 + 1111 \times 21512 &= 23899832 + 23899832 := \mathbf{47799664} & 25752 \times 1001 + 1001 \times 25752 &= 25777752 + 25777752 := \mathbf{51555504} \\
23932 \times 1001 + 1001 \times 23932 &= 23955932 + 23955932 := \mathbf{47911864} & 25852 \times 1001 + 1001 \times 25852 &= 25877852 + 25877852 := \mathbf{51755704}
\end{aligned}$$

$$\begin{aligned}
21212 \times 1221 + 1221 \times 21212 &= 25899852 + 25899852 := \mathbf{51799704} & 10201 \times 3003 + 3003 \times 10201 &= 30633603 + 30633603 := \mathbf{61267206} \\
25952 \times 1001 + 1001 \times 25952 &= 25977952 + 25977952 := \mathbf{51955904} & 30603 \times 1001 + 1001 \times 30603 &= 30633603 + 30633603 := \mathbf{61267206} \\
13031 \times 2002 + 2002 \times 13031 &= 26088062 + 26088062 := \mathbf{52176124} & 30703 \times 1001 + 1001 \times 30703 &= 30733703 + 30733703 := \mathbf{61467406} \\
26062 \times 1001 + 1001 \times 26062 &= 26088062 + 26088062 := \mathbf{52176124} & 30803 \times 1001 + 1001 \times 30803 &= 30833803 + 30833803 := \mathbf{61667606} \\
26162 \times 1001 + 1001 \times 26162 &= 26188162 + 26188162 := \mathbf{52376324} & 10301 \times 3003 + 3003 \times 10301 &= 30933903 + 30933903 := \mathbf{61867806} \\
13131 \times 2002 + 2002 \times 13131 &= 26288262 + 26288262 := \mathbf{52576524} & 30903 \times 1001 + 1001 \times 30903 &= 30933903 + 30933903 := \mathbf{61867806} \\
26262 \times 1001 + 1001 \times 26262 &= 26288262 + 26288262 := \mathbf{52576524} & 31013 \times 1001 + 1001 \times 31013 &= 31044013 + 31044013 := \mathbf{62088026} \\
26362 \times 1001 + 1001 \times 26362 &= 26388362 + 26388362 := \mathbf{52776724} & 31113 \times 1001 + 1001 \times 31113 &= 31144113 + 31144113 := \mathbf{62288226} \\
13231 \times 2002 + 2002 \times 13231 &= 26488462 + 26488462 := \mathbf{52976924} & 31213 \times 1001 + 1001 \times 31213 &= 31244213 + 31244213 := \mathbf{62488426} \\
26462 \times 1001 + 1001 \times 26462 &= 26488462 + 26488462 := \mathbf{52976924} & 31313 \times 1001 + 1001 \times 31313 &= 31344313 + 31344313 := \mathbf{62688626} \\
26562 \times 1001 + 1001 \times 26562 &= 26588562 + 26588562 := \mathbf{53177124} & 31413 \times 1001 + 1001 \times 31413 &= 31444413 + 31444413 := \mathbf{62888826} \\
10001 \times 2662 + 2662 \times 10001 &= 26622662 + 26622662 := \mathbf{53245324} & 31513 \times 1001 + 1001 \times 31513 &= 31544513 + 31544513 := \mathbf{63089026} \\
20002 \times 1331 + 1331 \times 20002 &= 26622662 + 26622662 := \mathbf{53245324} & 31613 \times 1001 + 1001 \times 31613 &= 31644613 + 31644613 := \mathbf{63289226} \\
13331 \times 2002 + 2002 \times 13331 &= 26688662 + 26688662 := \mathbf{53377324} & 31713 \times 1001 + 1001 \times 31713 &= 31744713 + 31744713 := \mathbf{63489426} \\
26662 \times 1001 + 1001 \times 26662 &= 26688662 + 26688662 := \mathbf{53377324} & 10201 \times 3113 + 3113 \times 10201 &= 31755713 + 31755713 := \mathbf{63511426} \\
20102 \times 1331 + 1331 \times 20102 &= 26755762 + 26755762 := \mathbf{53511524} & 31813 \times 1001 + 1001 \times 31813 &= 31844813 + 31844813 := \mathbf{63689626} \\
26762 \times 1001 + 1001 \times 26762 &= 26788762 + 26788762 := \mathbf{53577524} & 31913 \times 1001 + 1001 \times 31913 &= 31944913 + 31944913 := \mathbf{63889826} \\
10101 \times 2662 + 2662 \times 10101 &= 26888862 + 26888862 := \mathbf{53777724} & 32023 \times 1001 + 1001 \times 32023 &= 32055023 + 32055023 := \mathbf{64110046} \\
11011 \times 2442 + 2442 \times 11011 &= 26888862 + 26888862 := \mathbf{53777724} & 32123 \times 1001 + 1001 \times 32123 &= 32155123 + 32155123 := \mathbf{64310246} \\
13431 \times 2002 + 2002 \times 13431 &= 26888862 + 26888862 := \mathbf{53777724} & 32223 \times 1001 + 1001 \times 32223 &= 32255223 + 32255223 := \mathbf{64510446} \\
20202 \times 1331 + 1331 \times 20202 &= 26888862 + 26888862 := \mathbf{53777724} & 32323 \times 1001 + 1001 \times 32323 &= 32355323 + 32355323 := \mathbf{64710646} \\
22022 \times 1221 + 1221 \times 22022 &= 26888862 + 26888862 := \mathbf{53777724} & 32423 \times 1001 + 1001 \times 32423 &= 32455423 + 32455423 := \mathbf{64910846} \\
26862 \times 1001 + 1001 \times 26862 &= 26888862 + 26888862 := \mathbf{53777724} & 10101 \times 3223 + 3223 \times 10101 &= 32555523 + 32555523 := \mathbf{65111046} \\
26962 \times 1001 + 1001 \times 26962 &= 26988962 + 26988962 := \mathbf{53977924} & 32523 \times 1001 + 1001 \times 32523 &= 32555523 + 32555523 := \mathbf{65111046} \\
27072 \times 1001 + 1001 \times 27072 &= 27099072 + 27099072 := \mathbf{54198144} & 32623 \times 1001 + 1001 \times 32623 &= 32655623 + 32655623 := \mathbf{65311246} \\
27172 \times 1001 + 1001 \times 27172 &= 27199172 + 27199172 := \mathbf{54398344} & 32723 \times 1001 + 1001 \times 32723 &= 32755723 + 32755723 := \mathbf{65511446} \\
27272 \times 1001 + 1001 \times 27272 &= 27299272 + 27299272 := \mathbf{54598544} & 32823 \times 1001 + 1001 \times 32823 &= 32855823 + 32855823 := \mathbf{65711646} \\
27372 \times 1001 + 1001 \times 27372 &= 27399372 + 27399372 := \mathbf{54798744} & 10201 \times 3223 + 3223 \times 10201 &= 32877823 + 32877823 := \mathbf{65755646} \\
27472 \times 1001 + 1001 \times 27472 &= 27499472 + 27499472 := \mathbf{54998944} & 32923 \times 1001 + 1001 \times 32923 &= 32955923 + 32955923 := \mathbf{65911846} \\
27572 \times 1001 + 1001 \times 27572 &= 27599572 + 27599572 := \mathbf{55199144} & 11011 \times 3003 + 3003 \times 11011 &= 33066033 + 33066033 := \mathbf{66132066} \\
27672 \times 1001 + 1001 \times 27672 &= 27699672 + 27699672 := \mathbf{55399344} & 33033 \times 1001 + 1001 \times 33033 &= 33066033 + 33066033 := \mathbf{66132066} \\
10001 \times 2772 + 2772 \times 10001 &= 27722772 + 27722772 := \mathbf{55445544} & 33133 \times 1001 + 1001 \times 33133 &= 33166133 + 33166133 := \mathbf{66332266} \\
27772 \times 1001 + 1001 \times 27772 &= 27799772 + 27799772 := \mathbf{55599544} & 33233 \times 1001 + 1001 \times 33233 &= 33266233 + 33266233 := \mathbf{66532466} \\
27872 \times 1001 + 1001 \times 27872 &= 27899872 + 27899872 := \mathbf{55799744} & 11111 \times 3003 + 3003 \times 11111 &= 33366333 + 33366333 := \mathbf{66732666} \\
21012 \times 1331 + 1331 \times 21012 &= 27966972 + 27966972 := \mathbf{55933944} & 33333 \times 1001 + 1001 \times 33333 &= 33366333 + 33366333 := \mathbf{66732666} \\
10101 \times 2772 + 2772 \times 10101 &= 27999972 + 27999972 := \mathbf{55999944} & 33433 \times 1001 + 1001 \times 33433 &= 33466433 + 33466433 := \mathbf{66932866} \\
27972 \times 1001 + 1001 \times 27972 &= 27999972 + 27999972 := \mathbf{55999944} & 30203 \times 1111 + 1111 \times 30203 &= 33555533 + 33555533 := \mathbf{67111066} \\
10001 \times 2882 + 2882 \times 10001 &= 28822882 + 28822882 := \mathbf{57645764} & 33533 \times 1001 + 1001 \times 33533 &= 33566533 + 33566533 := \mathbf{67133066} \\
20002 \times 1441 + 1441 \times 20002 &= 28822882 + 28822882 := \mathbf{57645764} & 10101 \times 3333 + 3333 \times 10101 &= 33666633 + 33666633 := \mathbf{67333266} \\
20102 \times 1441 + 1441 \times 20102 &= 28966982 + 28966982 := \mathbf{57933964} & 11211 \times 3003 + 3003 \times 11211 &= 33666633 + 33666633 := \mathbf{67333266} \\
10001 \times 2992 + 2992 \times 10001 &= 29922992 + 29922992 := \mathbf{59845984} & 30303 \times 1111 + 1111 \times 30303 &= 33666633 + 33666633 := \mathbf{67333266} \\
30403 \times 1001 + 1001 \times 30403 &= 30433403 + 30433403 := \mathbf{60866806} & 33633 \times 1001 + 1001 \times 33633 &= 33666633 + 33666633 := \mathbf{67333266} \\
30503 \times 1001 + 1001 \times 30503 &= 30533503 + 30533503 := \mathbf{61067006} & 33733 \times 1001 + 1001 \times 33733 &= 33766733 + 33766733 := \mathbf{67533466}
\end{aligned}$$

$$\begin{aligned}
30403 \times 1111 + 1111 \times 30403 &= 33777733 + 33777733 := \mathbf{67555466} & 36063 \times 1001 + 1001 \times 36063 &= 36099063 + 36099063 := \mathbf{72198126} \\
33833 \times 1001 + 1001 \times 33833 &= 33866833 + 33866833 := \mathbf{67733666} & 36163 \times 1001 + 1001 \times 36163 &= 36199163 + 36199163 := \mathbf{72398326} \\
30503 \times 1111 + 1111 \times 30503 &= 33888833 + 33888833 := \mathbf{67777666} & 36263 \times 1001 + 1001 \times 36263 &= 36299263 + 36299263 := \mathbf{72598526} \\
11311 \times 3003 + 3003 \times 11311 &= 33966933 + 33966933 := \mathbf{67933866} & 12121 \times 3003 + 3003 \times 12121 &= 36399363 + 36399363 := \mathbf{72798726} \\
33933 \times 1001 + 1001 \times 33933 &= 33966933 + 33966933 := \mathbf{67933866} & 36363 \times 1001 + 1001 \times 36363 &= 36399363 + 36399363 := \mathbf{72798726} \\
10201 \times 3333 + 3333 \times 10201 &= 33999933 + 33999933 := \mathbf{67999866} & 36463 \times 1001 + 1001 \times 36463 &= 36499463 + 36499463 := \mathbf{72998926} \\
30603 \times 1111 + 1111 \times 30603 &= 33999933 + 33999933 := \mathbf{67999866} & 36563 \times 1001 + 1001 \times 36563 &= 36599563 + 36599563 := \mathbf{73199126} \\
34043 \times 1001 + 1001 \times 34043 &= 34077043 + 34077043 := \mathbf{68154086} & 10001 \times 3663 + 3663 \times 10001 &= 36633663 + 36633663 := \mathbf{73267326} \\
34143 \times 1001 + 1001 \times 34143 &= 34177143 + 34177143 := \mathbf{68354286} & 30003 \times 1221 + 1221 \times 30003 &= 36633663 + 36633663 := \mathbf{73267326} \\
11011 \times 3113 + 3113 \times 11011 &= 34277243 + 34277243 := \mathbf{68554486} & 11011 \times 3333 + 3333 \times 11011 &= 36699663 + 36699663 := \mathbf{73399326} \\
34243 \times 1001 + 1001 \times 34243 &= 34277243 + 34277243 := \mathbf{68554486} & 12221 \times 3003 + 3003 \times 12221 &= 36699663 + 36699663 := \mathbf{73399326} \\
34343 \times 1001 + 1001 \times 34343 &= 34377343 + 34377343 := \mathbf{68754686} & 33033 \times 1111 + 1111 \times 33033 &= 36699663 + 36699663 := \mathbf{73399326} \\
31013 \times 1111 + 1111 \times 31013 &= 34455443 + 34455443 := \mathbf{68910886} & 36663 \times 1001 + 1001 \times 36663 &= 36699663 + 36699663 := \mathbf{73399326} \\
34443 \times 1001 + 1001 \times 34443 &= 34477443 + 34477443 := \mathbf{68954886} & 30103 \times 1221 + 1221 \times 30103 &= 36755763 + 36755763 := \mathbf{73511526} \\
31113 \times 1111 + 1111 \times 31113 &= 34566543 + 34566543 := \mathbf{69133086} & 36763 \times 1001 + 1001 \times 36763 &= 36799763 + 36799763 := \mathbf{73599526} \\
34543 \times 1001 + 1001 \times 34543 &= 34577543 + 34577543 := \mathbf{69155086} & 30203 \times 1221 + 1221 \times 30203 &= 36877863 + 36877863 := \mathbf{73755726} \\
11111 \times 3113 + 3113 \times 11111 &= 34588543 + 34588543 := \mathbf{69177086} & 36863 \times 1001 + 1001 \times 36863 &= 36899863 + 36899863 := \mathbf{73799726} \\
31213 \times 1111 + 1111 \times 31213 &= 34677643 + 34677643 := \mathbf{69355286} & 10101 \times 3663 + 3663 \times 10101 &= 36999963 + 36999963 := \mathbf{73999926} \\
34643 \times 1001 + 1001 \times 34643 &= 34677643 + 34677643 := \mathbf{69355286} & 12321 \times 3003 + 3003 \times 12321 &= 36999963 + 36999963 := \mathbf{73999926} \\
10101 \times 3443 + 3443 \times 10101 &= 34777743 + 34777743 := \mathbf{69555486} & 30303 \times 1221 + 1221 \times 30303 &= 36999963 + 36999963 := \mathbf{73999926} \\
34743 \times 1001 + 1001 \times 34743 &= 34777743 + 34777743 := \mathbf{69555486} & 36963 \times 1001 + 1001 \times 36963 &= 36999963 + 36999963 := \mathbf{73999926} \\
31313 \times 1111 + 1111 \times 31313 &= 34788743 + 34788743 := \mathbf{69577486} & 10001 \times 3773 + 3773 \times 10001 &= 37733773 + 37733773 := \mathbf{75467546} \\
34843 \times 1001 + 1001 \times 34843 &= 34877843 + 34877843 := \mathbf{69755686} & 31013 \times 1221 + 1221 \times 31013 &= 37866873 + 37866873 := \mathbf{75733746} \\
11211 \times 3113 + 3113 \times 11211 &= 34899843 + 34899843 := \mathbf{69799686} & 31113 \times 1221 + 1221 \times 31113 &= 37988973 + 37988973 := \mathbf{75977946} \\
31413 \times 1111 + 1111 \times 31413 &= 34899843 + 34899843 := \mathbf{69799686} & 10001 \times 3883 + 3883 \times 10001 &= 38833883 + 38833883 := \mathbf{77667766} \\
34943 \times 1001 + 1001 \times 34943 &= 34977943 + 34977943 := \mathbf{69955886} & 10001 \times 3993 + 3993 \times 10001 &= 39933993 + 39933993 := \mathbf{79867986} \\
35053 \times 1001 + 1001 \times 35053 &= 35088053 + 35088053 := \mathbf{70176106} & 30003 \times 1331 + 1331 \times 30003 &= 39933993 + 39933993 := \mathbf{79867986} \\
35153 \times 1001 + 1001 \times 35153 &= 35188153 + 35188153 := \mathbf{70376306} & 20202 \times 2002 + 2002 \times 20202 &= 40444404 + 40444404 := \mathbf{80888808} \\
35253 \times 1001 + 1001 \times 35253 &= 35288253 + 35288253 := \mathbf{70576506} & 40504 \times 1001 + 1001 \times 40504 &= 40544504 + 40544504 := \mathbf{81089008} \\
35353 \times 1001 + 1001 \times 35353 &= 35388353 + 35388353 := \mathbf{70776706} & 20302 \times 2002 + 2002 \times 20302 &= 40644604 + 40644604 := \mathbf{81289208} \\
11011 \times 3223 + 3223 \times 11011 &= 35488453 + 35488453 := \mathbf{70976906} & 40604 \times 1001 + 1001 \times 40604 &= 40644604 + 40644604 := \mathbf{81289208} \\
35453 \times 1001 + 1001 \times 35453 &= 35488453 + 35488453 := \mathbf{70976906} & 40704 \times 1001 + 1001 \times 40704 &= 40744704 + 40744704 := \mathbf{81489408} \\
10001 \times 3553 + 3553 \times 10001 &= 35533553 + 35533553 := \mathbf{71067106} & 10201 \times 4004 + 4004 \times 10201 &= 40844804 + 40844804 := \mathbf{81689608} \\
32023 \times 1111 + 1111 \times 32023 &= 35577553 + 35577553 := \mathbf{71155106} & 20402 \times 2002 + 2002 \times 20402 &= 40844804 + 40844804 := \mathbf{81689608} \\
35553 \times 1001 + 1001 \times 35553 &= 35588553 + 35588553 := \mathbf{71177106} & 40804 \times 1001 + 1001 \times 40804 &= 40844804 + 40844804 := \mathbf{81689608} \\
32123 \times 1111 + 1111 \times 32123 &= 35688653 + 35688653 := \mathbf{71377306} & 40904 \times 1001 + 1001 \times 40904 &= 40944904 + 40944904 := \mathbf{81889808} \\
35653 \times 1001 + 1001 \times 35653 &= 35688653 + 35688653 := \mathbf{71377306} & 41014 \times 1001 + 1001 \times 41014 &= 41055014 + 41055014 := \mathbf{82110028} \\
35753 \times 1001 + 1001 \times 35753 &= 35788753 + 35788753 := \mathbf{71577506} & 41114 \times 1001 + 1001 \times 41114 &= 41155114 + 41155114 := \mathbf{82310228} \\
32223 \times 1111 + 1111 \times 32223 &= 35799753 + 35799753 := \mathbf{71599506} & 41214 \times 1001 + 1001 \times 41214 &= 41255214 + 41255214 := \mathbf{82510428} \\
10101 \times 3553 + 3553 \times 10101 &= 35888853 + 35888853 := \mathbf{71777706} & 41314 \times 1001 + 1001 \times 41314 &= 41355314 + 41355314 := \mathbf{82710628} \\
35853 \times 1001 + 1001 \times 35853 &= 35888853 + 35888853 := \mathbf{71777706} & 41414 \times 1001 + 1001 \times 41414 &= 41455414 + 41455414 := \mathbf{82910828} \\
35953 \times 1001 + 1001 \times 35953 &= 35988953 + 35988953 := \mathbf{71977906} & 10101 \times 4114 + 4114 \times 10101 &= 41555514 + 41555514 := \mathbf{83111028} \\
12021 \times 3003 + 3003 \times 12021 &= 36099063 + 36099063 := \mathbf{72198126} & 41514 \times 1001 + 1001 \times 41514 &= 41555514 + 41555514 := \mathbf{83111028}
\end{aligned}$$

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 $53135 \times 1001 + 1001 \times 53135 = 53188135 + 53188135 := \mathbf{106376270}$
 $53235 \times 1001 + 1001 \times 53235 = 53288235 + 53288235 := \mathbf{106576470}$
 $10001 \times 5335 + 5335 \times 10001 = 53355335 + 53355335 := \mathbf{106710670}$
 $53335 \times 1001 + 1001 \times 53335 = 53388335 + 53388335 := \mathbf{106776670}$
 $53435 \times 1001 + 1001 \times 53435 = 53488435 + 53488435 := \mathbf{106976870}$
 $53535 \times 1001 + 1001 \times 53535 = 53588535 + 53588535 := \mathbf{107177070}$
 $53635 \times 1001 + 1001 \times 53635 = 53688635 + 53688635 := \mathbf{107377270}$
 $53735 \times 1001 + 1001 \times 53735 = 53788735 + 53788735 := \mathbf{107577470}$
 $10101 \times 5335 + 5335 \times 10101 = 53888835 + 53888835 := \mathbf{107777670}$
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 $53935 \times 1001 + 1001 \times 53935 = 53988935 + 53988935 := \mathbf{107977870}$
 $54045 \times 1001 + 1001 \times 54045 = 54099045 + 54099045 := \mathbf{108198090}$
 $54145 \times 1001 + 1001 \times 54145 = 54199145 + 54199145 := \mathbf{108398290}$
 $54245 \times 1001 + 1001 \times 54245 = 54299245 + 54299245 := \mathbf{108598490}$
 $54345 \times 1001 + 1001 \times 54345 = 54399345 + 54399345 := \mathbf{108798690}$
 $10001 \times 5445 + 5445 \times 10001 = 54455445 + 54455445 := \mathbf{108910890}$
 $54445 \times 1001 + 1001 \times 54445 = 54499445 + 54499445 := \mathbf{108998890}$
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 $54745 \times 1001 + 1001 \times 54745 = 54799745 + 54799745 := \mathbf{109599490}$
 $54845 \times 1001 + 1001 \times 54845 = 54899845 + 54899845 := \mathbf{109799690}$

$10101 \times 5445 + 5445 \times 10101 = 54999945 + 54999945 := \mathbf{109999890}$
 $54945 \times 1001 + 1001 \times 54945 = 54999945 + 54999945 := \mathbf{109999890}$
 $10001 \times 5555 + 5555 \times 10001 = 55555555 + 55555555 := \mathbf{111111110}$
 $10001 \times 5665 + 5665 \times 10001 = 56655665 + 56655665 := \mathbf{113311330}$
 $10001 \times 5775 + 5775 \times 10001 = 57755775 + 57755775 := \mathbf{115511550}$
 $10001 \times 5885 + 5885 \times 10001 = 58855885 + 58855885 := \mathbf{117711770}$
 $10001 \times 5995 + 5995 \times 10001 = 59955995 + 59955995 := \mathbf{119911990}$
 $10001 \times 6006 + 6006 \times 10001 = 60066006 + 60066006 := \mathbf{120132012}$
 $20002 \times 3003 + 3003 \times 20002 = 60066006 + 60066006 := \mathbf{120132012}$
 $30003 \times 2002 + 2002 \times 30003 = 60066006 + 60066006 := \mathbf{120132012}$
 $60006 \times 1001 + 1001 \times 60006 = 60066006 + 60066006 := \mathbf{120132012}$
 $60106 \times 1001 + 1001 \times 60106 = 60166106 + 60166106 := \mathbf{120332212}$
 $30103 \times 2002 + 2002 \times 30103 = 60266206 + 60266206 := \mathbf{120532412}$
 $60206 \times 1001 + 1001 \times 60206 = 60266206 + 60266206 := \mathbf{120532412}$
 $20102 \times 3003 + 3003 \times 20102 = 60366306 + 60366306 := \mathbf{120732612}$
 $60306 \times 1001 + 1001 \times 60306 = 60366306 + 60366306 := \mathbf{120732612}$
 $30203 \times 2002 + 2002 \times 30203 = 60466406 + 60466406 := \mathbf{120932812}$
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 $60506 \times 1001 + 1001 \times 60506 = 60566506 + 60566506 := \mathbf{121133012}$
 $10101 \times 6006 + 6006 \times 10101 = 60666606 + 60666606 := \mathbf{121333212}$
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 $60706 \times 1001 + 1001 \times 60706 = 60766706 + 60766706 := \mathbf{121533412}$
 $30403 \times 2002 + 2002 \times 30403 = 60866806 + 60866806 := \mathbf{121733612}$
 $60806 \times 1001 + 1001 \times 60806 = 60866806 + 60866806 := \mathbf{121733612}$
 $20302 \times 3003 + 3003 \times 20302 = 60966906 + 60966906 := \mathbf{121933812}$
 $60906 \times 1001 + 1001 \times 60906 = 60966906 + 60966906 := \mathbf{121933812}$
 $61016 \times 1001 + 1001 \times 61016 = 61077016 + 61077016 := \mathbf{122154032}$
 $10001 \times 6116 + 6116 \times 10001 = 61166116 + 61166116 := \mathbf{122332232}$
 $61116 \times 1001 + 1001 \times 61116 = 61177116 + 61177116 := \mathbf{122354232}$
 $61216 \times 1001 + 1001 \times 61216 = 61277216 + 61277216 := \mathbf{122554432}$
 $61316 \times 1001 + 1001 \times 61316 = 61377316 + 61377316 := \mathbf{122754632}$
 $61416 \times 1001 + 1001 \times 61416 = 61477416 + 61477416 := \mathbf{122954832}$
 $61516 \times 1001 + 1001 \times 61516 = 61577516 + 61577516 := \mathbf{123155032}$
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 $10101 \times 6116 + 6116 \times 10101 = 61777716 + 61777716 := \mathbf{123555432}$
 $61716 \times 1001 + 1001 \times 61716 = 61777716 + 61777716 := \mathbf{123555432}$
 $61816 \times 1001 + 1001 \times 61816 = 61877816 + 61877816 := \mathbf{123755632}$
 $61916 \times 1001 + 1001 \times 61916 = 61977916 + 61977916 := \mathbf{123955832}$
 $31013 \times 2002 + 2002 \times 31013 = 62088026 + 62088026 := \mathbf{124176052}$
 $62026 \times 1001 + 1001 \times 62026 = 62088026 + 62088026 := \mathbf{124176052}$
 $62126 \times 1001 + 1001 \times 62126 = 62188126 + 62188126 := \mathbf{124376252}$

$$\begin{aligned}
10001 \times 6226 + 6226 \times 10001 &= 62266226 + 62266226 =: \mathbf{124532452} & 20002 \times 3333 + 3333 \times 20002 &= 66666666 + 66666666 =: \mathbf{133333332} \\
20002 \times 3113 + 3113 \times 20002 &= 62266226 + 62266226 =: \mathbf{124532452} & 30003 \times 2222 + 2222 \times 30003 &= 66666666 + 66666666 =: \mathbf{133333332} \\
31113 \times 2002 + 2002 \times 31113 &= 62288226 + 62288226 =: \mathbf{124576452} & 60006 \times 1111 + 1111 \times 60006 &= 66666666 + 66666666 =: \mathbf{133333332} \\
62226 \times 1001 + 1001 \times 62226 &= 62288226 + 62288226 =: \mathbf{124576452} & 60106 \times 1111 + 1111 \times 60106 &= 66777766 + 66777766 =: \mathbf{133555532} \\
62326 \times 1001 + 1001 \times 62326 &= 62388326 + 62388326 =: \mathbf{124776652} & 30103 \times 2222 + 2222 \times 30103 &= 66888866 + 66888866 =: \mathbf{133777732} \\
31213 \times 2002 + 2002 \times 31213 &= 62488426 + 62488426 =: \mathbf{124976852} & 60206 \times 1111 + 1111 \times 60206 &= 66888866 + 66888866 =: \mathbf{133777732} \\
62426 \times 1001 + 1001 \times 62426 &= 62488426 + 62488426 =: \mathbf{124976852} & 20102 \times 3333 + 3333 \times 20102 &= 66999966 + 66999966 =: \mathbf{133999932} \\
20102 \times 3113 + 3113 \times 20102 &= 62577526 + 62577526 =: \mathbf{125155052} & 60306 \times 1111 + 1111 \times 60306 &= 66999966 + 66999966 =: \mathbf{133999932} \\
62526 \times 1001 + 1001 \times 62526 &= 62588526 + 62588526 =: \mathbf{125177052} & 10001 \times 6776 + 6776 \times 10001 &= 67766776 + 67766776 =: \mathbf{135533552} \\
31313 \times 2002 + 2002 \times 31313 &= 62688626 + 62688626 =: \mathbf{125377252} & 61016 \times 1111 + 1111 \times 61016 &= 67788776 + 67788776 =: \mathbf{135577552} \\
62626 \times 1001 + 1001 \times 62626 &= 62688626 + 62688626 =: \mathbf{125377252} & 61116 \times 1111 + 1111 \times 61116 &= 67899876 + 67899876 =: \mathbf{135799752} \\
62726 \times 1001 + 1001 \times 62726 &= 62788726 + 62788726 =: \mathbf{125577452} & 10001 \times 6886 + 6886 \times 10001 &= 68866886 + 68866886 =: \mathbf{137733772} \\
10101 \times 6226 + 6226 \times 10101 &= 62888826 + 62888826 =: \mathbf{125777652} & 20002 \times 3443 + 3443 \times 20002 &= 68866886 + 68866886 =: \mathbf{137733772} \\
20202 \times 3113 + 3113 \times 20202 &= 62888826 + 62888826 =: \mathbf{125777652} & 10001 \times 6996 + 6996 \times 10001 &= 69966996 + 69966996 =: \mathbf{139933992} \\
31413 \times 2002 + 2002 \times 31413 &= 62888826 + 62888826 =: \mathbf{125777652} & 30003 \times 2332 + 2332 \times 30003 &= 69966996 + 69966996 =: \mathbf{139933992} \\
62826 \times 1001 + 1001 \times 62826 &= 62888826 + 62888826 =: \mathbf{125777652} & 10001 \times 7007 + 7007 \times 10001 &= 70077007 + 70077007 =: \mathbf{140154014} \\
62926 \times 1001 + 1001 \times 62926 &= 62988926 + 62988926 =: \mathbf{125977852} & 70007 \times 1001 + 1001 \times 70007 &= 70077007 + 70077007 =: \mathbf{140154014} \\
21012 \times 3003 + 3003 \times 21012 &= 63099036 + 63099036 =: \mathbf{126198072} & 70107 \times 1001 + 1001 \times 70107 &= 70177107 + 70177107 =: \mathbf{140354214} \\
63036 \times 1001 + 1001 \times 63036 &= 63099036 + 63099036 =: \mathbf{126198072} & 70207 \times 1001 + 1001 \times 70207 &= 70277207 + 70277207 =: \mathbf{140554414} \\
63136 \times 1001 + 1001 \times 63136 &= 63199136 + 63199136 =: \mathbf{126398272} & 70307 \times 1001 + 1001 \times 70307 &= 70377307 + 70377307 =: \mathbf{140754614} \\
63236 \times 1001 + 1001 \times 63236 &= 63299236 + 63299236 =: \mathbf{126598472} & 70407 \times 1001 + 1001 \times 70407 &= 70477407 + 70477407 =: \mathbf{140954814} \\
10001 \times 6336 + 6336 \times 10001 &= 63366336 + 63366336 =: \mathbf{126732672} & 70507 \times 1001 + 1001 \times 70507 &= 70577507 + 70577507 =: \mathbf{141155014} \\
30003 \times 2112 + 2112 \times 30003 &= 63366336 + 63366336 =: \mathbf{126732672} & 70607 \times 1001 + 1001 \times 70607 &= 70677607 + 70677607 =: \mathbf{141355214} \\
21112 \times 3003 + 3003 \times 21112 &= 63399336 + 63399336 =: \mathbf{126798672} & 10101 \times 7007 + 7007 \times 10101 &= 70777707 + 70777707 =: \mathbf{141555414} \\
63336 \times 1001 + 1001 \times 63336 &= 63399336 + 63399336 =: \mathbf{126798672} & 70707 \times 1001 + 1001 \times 70707 &= 70777707 + 70777707 =: \mathbf{141555414} \\
63436 \times 1001 + 1001 \times 63436 &= 63499436 + 63499436 =: \mathbf{126998872} & 70807 \times 1001 + 1001 \times 70807 &= 70877807 + 70877807 =: \mathbf{141755614} \\
30103 \times 2112 + 2112 \times 30103 &= 63577536 + 63577536 =: \mathbf{127155072} & 70907 \times 1001 + 1001 \times 70907 &= 70977907 + 70977907 =: \mathbf{141955814} \\
63536 \times 1001 + 1001 \times 63536 &= 63599536 + 63599536 =: \mathbf{127199072} & 71017 \times 1001 + 1001 \times 71017 &= 71088017 + 71088017 =: \mathbf{142176034} \\
21212 \times 3003 + 3003 \times 21212 &= 63699636 + 63699636 =: \mathbf{127399272} & 10001 \times 7117 + 7117 \times 10001 &= 71177117 + 71177117 =: \mathbf{142354234} \\
63636 \times 1001 + 1001 \times 63636 &= 63699636 + 63699636 =: \mathbf{127399272} & 71117 \times 1001 + 1001 \times 71117 &= 71188117 + 71188117 =: \mathbf{142376234} \\
30203 \times 2112 + 2112 \times 30203 &= 63788736 + 63788736 =: \mathbf{127577472} & 71217 \times 1001 + 1001 \times 71217 &= 71288217 + 71288217 =: \mathbf{142576434} \\
63736 \times 1001 + 1001 \times 63736 &= 63799736 + 63799736 =: \mathbf{127599472} & 71317 \times 1001 + 1001 \times 71317 &= 71388317 + 71388317 =: \mathbf{142776634} \\
63836 \times 1001 + 1001 \times 63836 &= 63899836 + 63899836 =: \mathbf{127799672} & 71417 \times 1001 + 1001 \times 71417 &= 71488417 + 71488417 =: \mathbf{142976834} \\
10101 \times 6336 + 6336 \times 10101 &= 63999936 + 63999936 =: \mathbf{127999872} & 71517 \times 1001 + 1001 \times 71517 &= 71588517 + 71588517 =: \mathbf{143177034} \\
21312 \times 3003 + 3003 \times 21312 &= 63999936 + 63999936 =: \mathbf{127999872} & 71617 \times 1001 + 1001 \times 71617 &= 71688617 + 71688617 =: \mathbf{143377234} \\
30303 \times 2112 + 2112 \times 30303 &= 63999936 + 63999936 =: \mathbf{127999872} & 71717 \times 1001 + 1001 \times 71717 &= 71788717 + 71788717 =: \mathbf{143577434} \\
63936 \times 1001 + 1001 \times 63936 &= 63999936 + 63999936 =: \mathbf{127999872} & 10101 \times 7117 + 7117 \times 10101 &= 71888817 + 71888817 =: \mathbf{143777634} \\
10001 \times 6446 + 6446 \times 10001 &= 64466446 + 64466446 =: \mathbf{128932892} & 71817 \times 1001 + 1001 \times 71817 &= 71888817 + 71888817 =: \mathbf{143777634} \\
20002 \times 3223 + 3223 \times 20002 &= 64466446 + 64466446 =: \mathbf{128932892} & 71917 \times 1001 + 1001 \times 71917 &= 71988917 + 71988917 =: \mathbf{143977834} \\
20102 \times 3223 + 3223 \times 20102 &= 64788746 + 64788746 =: \mathbf{129577492} & 72027 \times 1001 + 1001 \times 72027 &= 72099027 + 72099027 =: \mathbf{144198054} \\
31013 \times 2112 + 2112 \times 31013 &= 65499456 + 65499456 =: \mathbf{130998912} & 72127 \times 1001 + 1001 \times 72127 &= 72199127 + 72199127 =: \mathbf{144398254} \\
10001 \times 6556 + 6556 \times 10001 &= 65566556 + 65566556 =: \mathbf{131133112} & 10001 \times 7227 + 7227 \times 10001 &= 72277227 + 72277227 =: \mathbf{144554454} \\
10001 \times 6666 + 6666 \times 10001 &= 66666666 + 66666666 =: \mathbf{133333332} & 72227 \times 1001 + 1001 \times 72227 &= 72299227 + 72299227 =: \mathbf{144598454}
\end{aligned}$$

$72327 \times 1001 + 1001 \times 72327 = 72399327 + 72399327 :=$ 144798654	$81318 \times 1001 + 1001 \times 81318 = 81399318 + 81399318 :=$ 162798636
$72427 \times 1001 + 1001 \times 72427 = 72499427 + 72499427 :=$ 144998854	$81418 \times 1001 + 1001 \times 81418 = 81499418 + 81499418 :=$ 162998836
$72527 \times 1001 + 1001 \times 72527 = 72599527 + 72599527 :=$ 145199054	$81518 \times 1001 + 1001 \times 81518 = 81599518 + 81599518 :=$ 163199036
$72627 \times 1001 + 1001 \times 72627 = 72699627 + 72699627 :=$ 145399254	$81618 \times 1001 + 1001 \times 81618 = 81699618 + 81699618 :=$ 163399236
$72727 \times 1001 + 1001 \times 72727 = 72799727 + 72799727 :=$ 145599454	$81718 \times 1001 + 1001 \times 81718 = 81799718 + 81799718 :=$ 163599436
$72827 \times 1001 + 1001 \times 72827 = 72899827 + 72899827 :=$ 145799654	$81818 \times 1001 + 1001 \times 81818 = 81899818 + 81899818 :=$ 163799636
$10101 \times 7227 + 7227 \times 10101 = 72999927 + 72999927 :=$ 145999854	$10101 \times 8118 + 8118 \times 10101 = 81999918 + 81999918 :=$ 163999836
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$10001 \times 7777 + 7777 \times 10001 = 77777777 + 77777777 :=$ 155555554	$10001 \times 8448 + 8448 \times 10001 = 84488448 + 84488448 :=$ 168976896
$70007 \times 1111 + 1111 \times 70007 = 77777777 + 77777777 :=$ 155555554	$20002 \times 4224 + 4224 \times 20002 = 84488448 + 84488448 :=$ 168976896
$70107 \times 1111 + 1111 \times 70107 = 77888877 + 77888877 :=$ 155777754	$40004 \times 2112 + 2112 \times 40004 = 84488448 + 84488448 :=$ 168976896
$70207 \times 1111 + 1111 \times 70207 = 77999977 + 77999977 :=$ 155999954	$40104 \times 2112 + 2112 \times 40104 = 84699648 + 84699648 :=$ 169399296
$10001 \times 7887 + 7887 \times 10001 = 78877887 + 78877887 :=$ 157755774	$10001 \times 8558 + 8558 \times 10001 = 85588558 + 85588558 :=$ 171177116
$71017 \times 1111 + 1111 \times 71017 = 78899887 + 78899887 :=$ 157799774	$10001 \times 8668 + 8668 \times 10001 = 86688668 + 86688668 :=$ 173377336
$10001 \times 7997 + 7997 \times 10001 = 79977997 + 79977997 :=$ 159955994	$20002 \times 4334 + 4334 \times 20002 = 86688668 + 86688668 :=$ 173377336
$10001 \times 8008 + 8008 \times 10001 = 80088008 + 80088008 :=$ 160176016	$10001 \times 8778 + 8778 \times 10001 = 87788778 + 87788778 :=$ 175577556
$20002 \times 4004 + 4004 \times 20002 = 80088008 + 80088008 :=$ 160176016	$10001 \times 8888 + 8888 \times 10001 = 88888888 + 88888888 :=$ 177777776
$40004 \times 2002 + 2002 \times 40004 = 80088008 + 80088008 :=$ 160176016	$20002 \times 4444 + 4444 \times 20002 = 88888888 + 88888888 :=$ 177777776
$80008 \times 1001 + 1001 \times 80008 = 80088008 + 80088008 :=$ 160176016	$40004 \times 2222 + 2222 \times 40004 = 88888888 + 88888888 :=$ 177777776
$80108 \times 1001 + 1001 \times 80108 = 80188108 + 80188108 :=$ 160376216	$80008 \times 1111 + 1111 \times 80008 = 88888888 + 88888888 :=$ 177777776
$40104 \times 2002 + 2002 \times 40104 = 80288208 + 80288208 :=$ 160576416	$80108 \times 1111 + 1111 \times 80108 = 88999988 + 88999988 :=$ 177999976
$80208 \times 1001 + 1001 \times 80208 = 80288208 + 80288208 :=$ 160576416	$10001 \times 8998 + 8998 \times 10001 = 89988998 + 89988998 :=$ 179977996
$80308 \times 1001 + 1001 \times 80308 = 80388308 + 80388308 :=$ 160776616	$10001 \times 9009 + 9009 \times 10001 = 90099009 + 90099009 :=$ 180198018
$20102 \times 4004 + 4004 \times 20102 = 80488408 + 80488408 :=$ 160976816	$30003 \times 3003 + 3003 \times 30003 = 90099009 + 90099009 :=$ 180198018
$40204 \times 2002 + 2002 \times 40204 = 80488408 + 80488408 :=$ 160976816	$90009 \times 1001 + 1001 \times 90009 = 90099009 + 90099009 :=$ 180198018
$80408 \times 1001 + 1001 \times 80408 = 80488408 + 80488408 :=$ 160976816	$90109 \times 1001 + 1001 \times 90109 = 90199109 + 90199109 :=$ 180398218
$80508 \times 1001 + 1001 \times 80508 = 80588508 + 80588508 :=$ 161177016	$90209 \times 1001 + 1001 \times 90209 = 90299209 + 90299209 :=$ 180598418
$40304 \times 2002 + 2002 \times 40304 = 80688608 + 80688608 :=$ 161377216	$30103 \times 3003 + 3003 \times 30103 = 90399309 + 90399309 :=$ 180798618
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$80708 \times 1001 + 1001 \times 80708 = 80788708 + 80788708 :=$ 161577416	$90409 \times 1001 + 1001 \times 90409 = 90499409 + 90499409 :=$ 180998818
$10101 \times 8008 + 8008 \times 10101 = 80888808 + 80888808 :=$ 161777616	$90509 \times 1001 + 1001 \times 90509 = 90599509 + 90599509 :=$ 181199018
$20202 \times 4004 + 4004 \times 20202 = 80888808 + 80888808 :=$ 161777616	$30203 \times 3003 + 3003 \times 30203 = 90699609 + 90699609 :=$ 181399218
$40404 \times 2002 + 2002 \times 40404 = 80888808 + 80888808 :=$ 161777616	$90609 \times 1001 + 1001 \times 90609 = 90699609 + 90699609 :=$ 181399218
$80808 \times 1001 + 1001 \times 80808 = 80888808 + 80888808 :=$ 161777616	$90709 \times 1001 + 1001 \times 90709 = 90799709 + 90799709 :=$ 181599418
$80908 \times 1001 + 1001 \times 80908 = 80988908 + 80988908 :=$ 161977816	$90809 \times 1001 + 1001 \times 90809 = 90899809 + 90899809 :=$ 181799618
$81018 \times 1001 + 1001 \times 81018 = 81099018 + 81099018 :=$ 162198036	$10101 \times 9009 + 9009 \times 10101 = 90999909 + 90999909 :=$ 181999818
$10001 \times 8118 + 8118 \times 10001 = 81188118 + 81188118 :=$ 162376236	$30303 \times 3003 + 3003 \times 30303 = 90999909 + 90999909 :=$ 181999818
$81118 \times 1001 + 1001 \times 81118 = 81199118 + 81199118 :=$ 162398236	$90909 \times 1001 + 1001 \times 90909 = 90999909 + 90999909 :=$ 181999818
$81218 \times 1001 + 1001 \times 81218 = 81299218 + 81299218 :=$ 162598436	$10001 \times 9119 + 9119 \times 10001 = 91199119 + 91199119 :=$ 182398238

$10001 \times 9229 + 9229 \times 10001 = 92299229 + 92299229 := \mathbf{184598458}$
 $10001 \times 9339 + 9339 \times 10001 = 93399339 + 93399339 := \mathbf{186798678}$
 $30003 \times 3113 + 3113 \times 30003 = 93399339 + 93399339 := \mathbf{186798678}$
 $10001 \times 9449 + 9449 \times 10001 = 94499449 + 94499449 := \mathbf{188998898}$
 $10001 \times 9559 + 9559 \times 10001 = 95599559 + 95599559 := \mathbf{191199118}$
 $10001 \times 9669 + 9669 \times 10001 = 96699669 + 96699669 := \mathbf{193399338}$
 $30003 \times 3223 + 3223 \times 30003 = 96699669 + 96699669 := \mathbf{193399338}$
 $10001 \times 9779 + 9779 \times 10001 = 97799779 + 97799779 := \mathbf{195599558}$
 $10001 \times 9889 + 9889 \times 10001 = 98899889 + 98899889 := \mathbf{197799778}$
 $10001 \times 9999 + 9999 \times 10001 = 99999999 + 99999999 := \mathbf{199999998}$
 $30003 \times 3333 + 3333 \times 30003 = 99999999 + 99999999 := \mathbf{199999998}$

$90009 \times 1111 + 1111 \times 90009 = 99999999 + 99999999 := \mathbf{199999998}$
 $92729 \times 5445 + 5445 \times 92729 = 504909405 + 504909405 := \mathbf{1009818810}$
 $96769 \times 5335 + 5335 \times 96769 = 516262615 + 516262615 := \mathbf{1032525230}$
 $55555 \times 9779 + 9779 \times 55555 = 543272345 + 543272345 := \mathbf{1086544690}$
 $74347 \times 8228 + 8228 \times 74347 = 611727116 + 611727116 := \mathbf{1223454232}$
 $71317 \times 8778 + 8778 \times 71317 = 626020626 + 626020626 := \mathbf{1252041252}$
 $72927 \times 8668 + 8668 \times 72927 = 632131236 + 632131236 := \mathbf{1264262472}$
 $88888 \times 7337 + 7337 \times 88888 = 652171256 + 652171256 := \mathbf{1304342512}$

7.2.4 5-Digits Internal Product

$10401 \times 10001 + 10001 \times 10401 = 104020401 + 104020401 := \mathbf{208040802}$
 $10301 \times 10101 + 10101 \times 10301 = 104050401 + 104050401 := \mathbf{208100802}$
 $10201 \times 10201 + 10201 \times 10201 = 104060401 + 104060401 := \mathbf{208120802}$
 $10501 \times 10001 + 10001 \times 10501 = 105020501 + 105020501 := \mathbf{210041002}$
 $10401 \times 10101 + 10101 \times 10401 = 105060501 + 105060501 := \mathbf{210121002}$
 $10301 \times 10201 + 10201 \times 10301 = 105080501 + 105080501 := \mathbf{210161002}$
 $10601 \times 10001 + 10001 \times 10601 = 106020601 + 106020601 := \mathbf{212041202}$
 $10501 \times 10101 + 10101 \times 10501 = 106070601 + 106070601 := \mathbf{212141202}$
 $10701 \times 10001 + 10001 \times 10701 = 107020701 + 107020701 := \mathbf{214041402}$
 $10601 \times 10101 + 10101 \times 10601 = 107080701 + 107080701 := \mathbf{214161402}$
 $10801 \times 10001 + 10001 \times 10801 = 108020801 + 108020801 := \mathbf{216041602}$
 $10701 \times 10101 + 10101 \times 10701 = 108090801 + 108090801 := \mathbf{216181602}$
 $10901 \times 10001 + 10001 \times 10901 = 109020901 + 109020901 := \mathbf{218041802}$
 $11311 \times 10001 + 10001 \times 11311 = 113121311 + 113121311 := \mathbf{226242622}$
 $11411 \times 10001 + 10001 \times 11411 = 114121411 + 114121411 := \mathbf{228242822}$
 $11311 \times 10101 + 10101 \times 11311 = 114252411 + 114252411 := \mathbf{228504822}$
 $11211 \times 10201 + 10201 \times 11211 = 114363411 + 114363411 := \mathbf{228726822}$
 $11111 \times 10301 + 10301 \times 11111 = 114454411 + 114454411 := \mathbf{228908822}$
 $11011 \times 10401 + 10401 \times 11011 = 114525411 + 114525411 := \mathbf{229050822}$
 $11511 \times 10001 + 10001 \times 11511 = 115121511 + 115121511 := \mathbf{230243022}$
 $11411 \times 10101 + 10101 \times 11411 = 115262511 + 115262511 := \mathbf{230525022}$
 $11311 \times 10201 + 10201 \times 11311 = 115383511 + 115383511 := \mathbf{230767022}$
 $11211 \times 10301 + 10301 \times 11211 = 115484511 + 115484511 := \mathbf{230969022}$
 $11111 \times 10401 + 10401 \times 11111 = 115565511 + 115565511 := \mathbf{231131022}$
 $11011 \times 10501 + 10501 \times 11011 = 115626511 + 115626511 := \mathbf{231253022}$
 $11611 \times 10001 + 10001 \times 11611 = 116121611 + 116121611 := \mathbf{232243222}$
 $11511 \times 10101 + 10101 \times 11511 = 116272611 + 116272611 := \mathbf{232545222}$
 $11111 \times 10501 + 10501 \times 11111 = 116676611 + 116676611 := \mathbf{233353222}$
 $11011 \times 10601 + 10601 \times 11011 = 116727611 + 116727611 := \mathbf{233455222}$
 $11711 \times 10001 + 10001 \times 11711 = 117121711 + 117121711 := \mathbf{234243422}$
 $11611 \times 10101 + 10101 \times 11611 = 117282711 + 117282711 := \mathbf{234565422}$
 $11111 \times 10601 + 10601 \times 11111 = 117787711 + 117787711 := \mathbf{235575422}$
 $11011 \times 10701 + 10701 \times 11011 = 117828711 + 117828711 := \mathbf{235657422}$

$11811 \times 10001 + 10001 \times 11811 = 118121811 + 118121811 := \mathbf{236243622}$
 $11711 \times 10101 + 10101 \times 11711 = 118292811 + 118292811 := \mathbf{236585622}$
 $11111 \times 10701 + 10701 \times 11111 = 118898811 + 118898811 := \mathbf{237797622}$
 $11011 \times 10801 + 10801 \times 11011 = 118929811 + 118929811 := \mathbf{237859622}$
 $11911 \times 10001 + 10001 \times 11911 = 119121911 + 119121911 := \mathbf{238243822}$
 $11111 \times 11011 + 11011 \times 11111 = 122343221 + 122343221 := \mathbf{244686442}$
 $12021 \times 10201 + 10201 \times 12021 = 122626221 + 122626221 := \mathbf{245252442}$
 $11111 \times 11111 + 11111 \times 11111 = 123454321 + 123454321 := \mathbf{246908642}$
 $12121 \times 10201 + 10201 \times 12121 = 123646321 + 123646321 := \mathbf{247292642}$
 $12021 \times 10301 + 10301 \times 12021 = 123828321 + 123828321 := \mathbf{247656642}$
 $12321 \times 10101 + 10101 \times 12321 = 124454421 + 124454421 := \mathbf{248908842}$
 $11311 \times 11011 + 11011 \times 11311 = 124545421 + 124545421 := \mathbf{249090842}$
 $11211 \times 11111 + 11111 \times 11211 = 124565421 + 124565421 := \mathbf{249130842}$
 $12221 \times 10201 + 10201 \times 12221 = 124666421 + 124666421 := \mathbf{249332842}$
 $12121 \times 10301 + 10301 \times 12121 = 124858421 + 124858421 := \mathbf{249716842}$
 $12521 \times 10001 + 10001 \times 12521 = 125222521 + 125222521 := \mathbf{250445042}$
 $12421 \times 10101 + 10101 \times 12421 = 125464521 + 125464521 := \mathbf{250929042}$
 $11411 \times 11011 + 11011 \times 11411 = 125646521 + 125646521 := \mathbf{251293042}$
 $11311 \times 11111 + 11111 \times 11311 = 125676521 + 125676521 := \mathbf{251353042}$
 $11211 \times 11211 + 11211 \times 11211 = 125686521 + 125686521 := \mathbf{251373042}$
 $12321 \times 10201 + 10201 \times 12321 = 125686521 + 125686521 := \mathbf{251373042}$
 $12221 \times 10301 + 10301 \times 12221 = 125888521 + 125888521 := \mathbf{251777042}$
 $12621 \times 10001 + 10001 \times 12621 = 126222621 + 126222621 := \mathbf{252445242}$
 $12521 \times 10101 + 10101 \times 12521 = 126474621 + 126474621 := \mathbf{252949242}$
 $11511 \times 11011 + 11011 \times 11511 = 126747621 + 126747621 := \mathbf{253495242}$
 $11411 \times 11111 + 11111 \times 11411 = 126787621 + 126787621 := \mathbf{253575242}$
 $12721 \times 10001 + 10001 \times 12721 = 127222721 + 127222721 := \mathbf{254445442}$
 $12621 \times 10101 + 10101 \times 12621 = 127484721 + 127484721 := \mathbf{254969442}$
 $11611 \times 11011 + 11011 \times 11611 = 127848721 + 127848721 := \mathbf{255697442}$
 $11511 \times 11111 + 11111 \times 11511 = 127898721 + 127898721 := \mathbf{255797442}$
 $12821 \times 10001 + 10001 \times 12821 = 128222821 + 128222821 := \mathbf{256445642}$
 $12721 \times 10101 + 10101 \times 12721 = 128494821 + 128494821 := \mathbf{256989642}$
 $11711 \times 11011 + 11011 \times 11711 = 128949821 + 128949821 := \mathbf{257899642}$

$12921 \times 10001 + 10001 \times 12921 = 129222921 + 129222921 := 258445842$
 $13031 \times 10101 + 10101 \times 13031 = 131626131 + 131626131 := 263252262$
 $13231 \times 10001 + 10001 \times 13231 = 132323231 + 132323231 := 264646462$
 $12021 \times 11011 + 11011 \times 12021 = 132363231 + 132363231 := 264726462$
 $13131 \times 10101 + 10101 \times 13131 = 132636231 + 132636231 := 265272462$
 $13031 \times 10201 + 10201 \times 13031 = 132929231 + 132929231 := 265858462$
 $13331 \times 10001 + 10001 \times 13331 = 133323331 + 133323331 := 266646662$
 $12121 \times 11011 + 11011 \times 12121 = 133464331 + 133464331 := 266928662$
 $12021 \times 11111 + 11111 \times 12021 = 133565331 + 133565331 := 267130662$
 $13231 \times 10101 + 10101 \times 13231 = 133646331 + 133646331 := 267292662$
 $13131 \times 10201 + 10201 \times 13131 = 133949331 + 133949331 := 267898662$
 $13431 \times 10001 + 10001 \times 13431 = 134323431 + 134323431 := 268646862$
 $12221 \times 11011 + 11011 \times 12221 = 134565431 + 134565431 := 269130862$
 $13331 \times 10101 + 10101 \times 13331 = 134656431 + 134656431 := 269312862$
 $12121 \times 11111 + 11111 \times 12121 = 134676431 + 134676431 := 269352862$
 $12021 \times 11211 + 11211 \times 12021 = 134767431 + 134767431 := 269534862$
 $13231 \times 10201 + 10201 \times 13231 = 134969431 + 134969431 := 269938862$
 $13531 \times 10001 + 10001 \times 13531 = 135323531 + 135323531 := 270647062$
 $12321 \times 11011 + 11011 \times 12321 = 135666531 + 135666531 := 271333062$
 $13431 \times 10101 + 10101 \times 13431 = 135666531 + 135666531 := 271333062$
 $12221 \times 11111 + 11111 \times 12221 = 135787531 + 135787531 := 271575062$
 $12121 \times 11211 + 11211 \times 12121 = 135888531 + 135888531 := 271777062$
 $12021 \times 11311 + 11311 \times 12021 = 135969531 + 135969531 := 271939062$
 $13331 \times 10201 + 10201 \times 13331 = 135989531 + 135989531 := 271979062$
 $13631 \times 10001 + 10001 \times 13631 = 136323631 + 136323631 := 272647262$
 $13531 \times 10101 + 10101 \times 13531 = 136676631 + 136676631 := 273353262$
 $12421 \times 11011 + 11011 \times 12421 = 136767631 + 136767631 := 273535262$
 $12321 \times 11111 + 11111 \times 12321 = 136898631 + 136898631 := 273797262$
 $13731 \times 10001 + 10001 \times 13731 = 137323731 + 137323731 := 274647462$
 $13631 \times 10101 + 10101 \times 13631 = 137686731 + 137686731 := 275373462$
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 $13831 \times 10001 + 10001 \times 13831 = 138323831 + 138323831 := 276647662$
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 $14041 \times 10001 + 10001 \times 14041 = 140424041 + 140424041 := 280848082$
 $14141 \times 10001 + 10001 \times 14141 = 141424141 + 141424141 := 282848282$
 $14041 \times 10101 + 10101 \times 14041 = 141828141 + 141828141 := 283656282$
 $14141 \times 10101 + 10101 \times 14141 = 142838241 + 142838241 := 285676482$
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 $13131 \times 11011 + 11011 \times 13131 = 144585441 + 144585441 := 289170882$
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 $13231 \times 11011 + 11011 \times 13231 = 145686541 + 145686541 := 291373082$
 $14441 \times 10101 + 10101 \times 14441 = 145868541 + 145868541 := 291737082$
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 $14641 \times 10001 + 10001 \times 14641 = 146424641 + 146424641 := 292849282$
 $13331 \times 11011 + 11011 \times 13331 = 146787641 + 146787641 := 293575282$
 $14541 \times 10101 + 10101 \times 14541 = 146878641 + 146878641 := 293757282$
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 $14841 \times 10001 + 10001 \times 14841 = 148424841 + 148424841 := 296849682$
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 $13531 \times 11011 + 11011 \times 13531 = 148989841 + 148989841 := 297979682$
 $14941 \times 10001 + 10001 \times 14941 = 149424941 + 149424941 := 298849882$
 $15051 \times 10001 + 10001 \times 15051 = 150525051 + 150525051 := 301050102$
 $15151 \times 10001 + 10001 \times 15151 = 151525151 + 151525151 := 303050302$
 $15251 \times 10001 + 10001 \times 15251 = 152525251 + 152525251 := 305050502$
 $15351 \times 10001 + 10001 \times 15351 = 153525351 + 153525351 := 307050702$
 $15451 \times 10001 + 10001 \times 15451 = 154525451 + 154525451 := 309050902$
 $15551 \times 10001 + 10001 \times 15551 = 155525551 + 155525551 := 311051102$
 $15651 \times 10001 + 10001 \times 15651 = 156525651 + 156525651 := 313051302$
 $15751 \times 10001 + 10001 \times 15751 = 157525751 + 157525751 := 315051502$
 $15851 \times 10001 + 10001 \times 15851 = 158525851 + 158525851 := 317051702$
 $15951 \times 10001 + 10001 \times 15951 = 159525951 + 159525951 := 319051902$
 $16061 \times 10001 + 10001 \times 16061 = 160626061 + 160626061 := 321252122$
 $16161 \times 10001 + 10001 \times 16161 = 161626161 + 161626161 := 323252322$
 $16261 \times 10001 + 10001 \times 16261 = 162626261 + 162626261 := 325252522$
 $16361 \times 10001 + 10001 \times 16361 = 163626361 + 163626361 := 327252722$
 $16461 \times 10001 + 10001 \times 16461 = 164626461 + 164626461 := 329252922$
 $16561 \times 10001 + 10001 \times 16561 = 165626561 + 165626561 := 331253122$
 $16661 \times 10001 + 10001 \times 16661 = 166626661 + 166626661 := 333253322$
 $16761 \times 10001 + 10001 \times 16761 = 167626761 + 167626761 := 335253522$
 $16861 \times 10001 + 10001 \times 16861 = 168626861 + 168626861 := 337253722$
 $16961 \times 10001 + 10001 \times 16961 = 169626961 + 169626961 := 339253922$
 $17071 \times 10001 + 10001 \times 17071 = 170727071 + 170727071 := 341454142$
 $17171 \times 10001 + 10001 \times 17171 = 171727171 + 171727171 := 343454342$
 $17271 \times 10001 + 10001 \times 17271 = 172727271 + 172727271 := 345454542$
 $17371 \times 10001 + 10001 \times 17371 = 173727371 + 173727371 := 347454742$
 $17471 \times 10001 + 10001 \times 17471 = 174727471 + 174727471 := 349454942$
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 $17771 \times 10001 + 10001 \times 17771 = 177727771 + 177727771 := 355455542$
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 $18181 \times 10001 + 10001 \times 18181 = 181828181 + 181828181 := 363656362$
 $18281 \times 10001 + 10001 \times 18281 = 182828281 + 182828281 := 365656562$
 $18381 \times 10001 + 10001 \times 18381 = 183828381 + 183828381 := 367656762$
 $18481 \times 10001 + 10001 \times 18481 = 184828481 + 184828481 := 369656962$
 $18581 \times 10001 + 10001 \times 18581 = 185828581 + 185828581 := 371657162$
 $18681 \times 10001 + 10001 \times 18681 = 186828681 + 186828681 := 373657362$
 $18781 \times 10001 + 10001 \times 18781 = 187828781 + 187828781 := 375657562$

$18881 \times 10001 + 10001 \times 18881 = 188828881 + 188828881 := 377657762$
 $18981 \times 10001 + 10001 \times 18981 = 189828981 + 189828981 := 379657962$
 $19091 \times 10001 + 10001 \times 19091 = 190929091 + 190929091 := 381858182$
 $19191 \times 10001 + 10001 \times 19191 = 191929191 + 191929191 := 383858382$
 $19291 \times 10001 + 10001 \times 19291 = 192929291 + 192929291 := 385858582$
 $19391 \times 10001 + 10001 \times 19391 = 193929391 + 193929391 := 387858782$
 $19491 \times 10001 + 10001 \times 19491 = 194929491 + 194929491 := 389858982$
 $19591 \times 10001 + 10001 \times 19591 = 195929591 + 195929591 := 391859182$
 $19691 \times 10001 + 10001 \times 19691 = 196929691 + 196929691 := 393859382$
 $19791 \times 10001 + 10001 \times 19791 = 197929791 + 197929791 := 395859582$
 $19891 \times 10001 + 10001 \times 19891 = 198929891 + 198929891 := 397859782$
 $19991 \times 10001 + 10001 \times 19991 = 199929991 + 199929991 := 399859982$
 $20302 \times 10001 + 10001 \times 20302 = 203040302 + 203040302 := 406080604$
 $20102 \times 10101 + 10101 \times 20102 = 203050302 + 203050302 := 406100604$
 $20202 \times 10101 + 10101 \times 20202 = 204060402 + 204060402 := 408120804$
 $20502 \times 10001 + 10001 \times 20502 = 205040502 + 205040502 := 410081004$
 $20102 \times 10201 + 10201 \times 20102 = 205060502 + 205060502 := 410121004$
 $20302 \times 10101 + 10101 \times 20302 = 205070502 + 205070502 := 410141004$
 $20002 \times 10301 + 10301 \times 20002 = 206040602 + 206040602 := 412081204$
 $20602 \times 10001 + 10001 \times 20602 = 206040602 + 206040602 := 412081204$
 $20202 \times 10201 + 10201 \times 20202 = 206080602 + 206080602 := 412161204$
 $20402 \times 10101 + 10101 \times 20402 = 206080602 + 206080602 := 412161204$
 $20702 \times 10001 + 10001 \times 20702 = 207040702 + 207040702 := 414081404$
 $20102 \times 10301 + 10301 \times 20102 = 207070702 + 207070702 := 414141404$
 $20502 \times 10101 + 10101 \times 20502 = 207090702 + 207090702 := 414181404$
 $20002 \times 10401 + 10401 \times 20002 = 208040802 + 208040802 := 416081604$
 $20802 \times 10001 + 10001 \times 20802 = 208040802 + 208040802 := 416081604$
 $20902 \times 10001 + 10001 \times 20902 = 209040902 + 209040902 := 418081804$
 $20102 \times 10401 + 10401 \times 20102 = 209080902 + 209080902 := 418161804$
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 $21312 \times 10001 + 10001 \times 21312 = 213141312 + 213141312 := 426282624$
 $21112 \times 10101 + 10101 \times 21112 = 213252312 + 213252312 := 426504624$
 $21412 \times 10001 + 10001 \times 21412 = 214141412 + 214141412 := 428282824$
 $21212 \times 10101 + 10101 \times 21212 = 214262412 + 214262412 := 428524824$
 $21512 \times 10001 + 10001 \times 21512 = 215141512 + 215141512 := 430283024$
 $21312 \times 10101 + 10101 \times 21312 = 215272512 + 215272512 := 430545024$
 $21112 \times 10201 + 10201 \times 21112 = 215363512 + 215363512 := 430727024$
 $21612 \times 10001 + 10001 \times 21612 = 216141612 + 216141612 := 432283224$
 $21412 \times 10101 + 10101 \times 21412 = 216282612 + 216282612 := 432565224$
 $21212 \times 10201 + 10201 \times 21212 = 216383612 + 216383612 := 432767224$
 $21012 \times 10301 + 10301 \times 21012 = 216444612 + 216444612 := 432889224$
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 $21812 \times 10001 + 10001 \times 21812 = 218141812 + 218141812 := 436283624$
 $21012 \times 10401 + 10401 \times 21012 = 218545812 + 218545812 := 437091624$
 $21912 \times 10001 + 10001 \times 21912 = 219141912 + 219141912 := 438283824$
 $21112 \times 10401 + 10401 \times 21112 = 219585912 + 219585912 := 439171824$
 $22022 \times 10001 + 10001 \times 22022 = 220242022 + 220242022 := 440484044$
 $22122 \times 10001 + 10001 \times 22122 = 221242122 + 221242122 := 442484244$
 $22022 \times 10101 + 10101 \times 22022 = 222444222 + 222444222 := 444888444$
 $20102 \times 11111 + 11111 \times 20102 = 223353322 + 223353322 := 446706644$
 $22122 \times 10101 + 10101 \times 22122 = 223454322 + 223454322 := 446908644$
 $20302 \times 11011 + 11011 \times 20302 = 223545322 + 223545322 := 447090644$
 $20202 \times 11111 + 11111 \times 20202 = 224464422 + 224464422 := 448928844$
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 $20402 \times 11011 + 11011 \times 20402 = 224646422 + 224646422 := 449292844$
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 $22522 \times 10001 + 10001 \times 22522 = 225242522 + 225242522 := 450485044$
 $20102 \times 11211 + 11211 \times 20102 = 225363522 + 225363522 := 450727044$
 $22322 \times 10101 + 10101 \times 22322 = 225474522 + 225474522 := 450949044$
 $20302 \times 11111 + 11111 \times 20302 = 225575522 + 225575522 := 451151044$
 $22122 \times 10201 + 10201 \times 22122 = 225666522 + 225666522 := 451333044$
 $20502 \times 11011 + 11011 \times 20502 = 225747522 + 225747522 := 451495044$
 $20002 \times 11311 + 11311 \times 20002 = 226242622 + 226242622 := 452485244$
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 $22222 \times 10201 + 10201 \times 22222 = 226686622 + 226686622 := 453373244$
 $20602 \times 11011 + 11011 \times 20602 = 226848622 + 226848622 := 453697244$
 $22022 \times 10301 + 10301 \times 22022 = 226848622 + 226848622 := 453697244$
 $22722 \times 10001 + 10001 \times 22722 = 227242722 + 227242722 := 454485444$
 $20102 \times 11311 + 11311 \times 20102 = 227373722 + 227373722 := 454747444$
 $22522 \times 10101 + 10101 \times 22522 = 227494722 + 227494722 := 454989444$
 $20502 \times 11111 + 11111 \times 20502 = 227797722 + 227797722 := 455595444$
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 $20702 \times 11011 + 11011 \times 20702 = 227949722 + 227949722 := 455899444$
 $20002 \times 11411 + 11411 \times 20002 = 228242822 + 228242822 := 456485644$
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