

Research Group in Mathematical Inequalities and Applications

$$v(G) > \sum_{m \in G} v(m)$$

*The value of the Group is greater than
the sum of the values of its members.*

Problem Corner

Problem 2, (2010)

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Let $f(\cdot)$ be a convex function defined on a closed interval $[a, b] := I$. Denote

$$F(s, t) := f(s) + f(t) - 2f\left(\frac{s+t}{2}\right).$$

Prove that

$$\max_{s, t \in I} F(s, t) = F(a, b).$$