

# RESEARCH GROUP IN MATHEMATICAL INEQUALITIES AND APPLICATIONS

## 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

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