

Problem 3 (due Monday, March 11)

Let  $p(x) = cx^n + c_{-1}x^{n-1} + \dots$  be a polynomial of degree  $n$  with real coefficients and the leading coefficient  $c \neq 0$ . Prove that at least one of the numbers  $|p(0)|, |p(1)|, \dots, |p(n)|$  is greater or equal than  $\frac{|c|n!}{2^n}$ . Prove furthermore that this bound is best possible.

We received a solution from Mithun Padinhare Veetil. For a complete solution see the following link [Solution](#).

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