

Problem 3 (due Monday, March 11)

Let $p(x) = cx^n + c_{n-1}x^{n-1} + \dots$ 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 Veettil. For a complete solution see the following link [Solution](#).

From:

<https://www2.math.binghamton.edu/> - **Department of Mathematics and Statistics, Binghamton University**

Permanent link:

<https://www2.math.binghamton.edu/p/pow/problem3s24>

Last update: **2024/03/12 04:27**

