

Problem 1 (due Monday, February 9)

For which polynomials $f(x)$ the limit $\lim_{x \rightarrow \infty} \left(\sqrt[1013]{f(x+2)} - 2\sqrt[1013]{f(x+1)} + \sqrt[1013]{f(x)} \right)$ is finite and non-zero?

We received no solutions. The answer to the problem is that the limit is finite and non-zero if and only if the degree of f is equal to 2026. For a detailed solution see the following link [Solution](#).

From:

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

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<https://www2.math.binghamton.edu/p/pow/problem1s26>

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