

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:

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

Permanent link:

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

Last update: **2026/02/10 17:08**

