

CALCULUS

Polynomials and rational functions

OLD

0030-1. Yes or No (no partial credit).
OLD Is $1/x$ a polynomial in x ?

0030-2. No partial credit.
OLD What is the quadratic coefficient in
 $3x^5 + 2x^3 - 7x^2 + x + 1$?

0030-3. No partial credit.
OLD What is the quadratic coefficient in
 $7x^8 + 2x^4 - 7x^3 + x + 1$?

0030-4. No partial credit.
OLD What is the leading coefficient in
 $7x^8 + 2x^4 - 7x^3 + x + 1$?

0030-5. No partial credit.
OLD What is the quartic term in
 $7x^8 + 2x^4 - 7x^3 + x + 1$?

0030-6. Find an equation of the line through $(2, 7)$ and $(5, -2)$.

0030-7. Divide $2x^3 + x^2 - x + 5$ by $x + 1$. Show both the quotient and the remainder.

0030-8. Compute $[2x^3 + x^2 - x + 5]_{x \rightarrow -1}$.

0030-9. What is the multiplicity of $x = 2$ as a root of $x^5 - 5x^4 + 3x^3 + 22x^2 - 44x + 24$?