

CALCULUS

Polynomials and rational functions

NEW

NEW 0030-1. Yes or No (no partial credit).

Is $\sqrt{2x^3 + 4x - 1}$ a polynomial in x ?

NEW 0030-2. No partial credit.

What is the quadratic coefficient in $\sqrt{2}x^5 + 2x^3 - (\tan 1)x^2 + x + 7$?

NEW 0030-3. No partial credit.

What is the cubic coefficient in $2x^5 + 2x^4 - 3x^2 + x + 7$?

NEW 0030-4. No partial credit.

What is the leading coefficient in $7 + x - 3x^2 + 2x^3 - x^5$?

NEW 0030-5. No partial credit.

What is the linear term in $-2x^4 + 2x^3 - 3x^2 + 7$?

0030-6. Find an equation of the line through $(3, 7)$ and $(5, 11)$.

0030-7. Divide $3s^3 + 4s^2 - s + 5$ by $s + 1$. Show both the quotient and the remainder.

0030-8. Compute $[3s^3 + 4s^2 - s + 5]_{s \rightarrow -1}$.

0030-9. What is the multiplicity of $s = -2$ as a root of $s^5 + 4s^4 + 8s^3 + 21s^2 + 36s + 20$?