Factoring Exercise

MATH MONKS

Factor the given polynomials.

$3x^2 - 48$

$28x^3 - 7x$

$6x + 21$

$8x^2 + 10x - 25$

$-3x^2 - 9x + 30$

$(2a + 3)^2 - (a - 1)^2$

$4u^2 + v + 2uv + 2u$

$6ax - 2b - 3a + 4bx$

$5x^2 + 20x - 60$

$12t^5 - 20t^4 + 8t^2 - 16$

$10x^3 - 20x^2 - 2x + 4$

$27a^3 + 125$

$343\rho^3 + 196\rho^2 + 196\rho + 112$

$-4m^2x + 8mxn + 140n^2x$

Factoring Exercise

MATH MONKS

Answers

$3x^2 - 48$

$3(x - 4)(x + 4)$

$28x^3 - 7x$

$7x(2x - 1)(2x + 1)$

$6x + 21$

$3(2x + 7)$

$8x^2 + 10x - 25$

$(4x - 5)(2x + 5)$

$-3x^2 - 9x + 30$

$-3(x + 5)(x - 2)$

$(2a + 3)^2 - (a - 1)^2$

$(3a + 2)(a + 4)$

$4u^2 + v + 2uv + 2u$

$(2u + 1)(2u + v)$

$6ax - 2b - 3a + 4bx$

$(2x - 1)(3a + 2b)$

$5x^2 + 20x - 60$

$5(x + 6)(x - 2)$

$12t^5 - 20t^4 + 8t^2 - 16$

$4(3t^5 - 5t^4 + 2t^2 - 4)$

$10x^3 - 20x^2 - 2x + 4$

$2(x - 2)(5x^2 - 1)$

$27a^3 + 125$

$(3a + 5)(9a^2 - 15a + 25)$

$343\rho^3 + 196\rho^2 + 196\rho + 112$

$7(7\rho^2 + 4)(7\rho + 4)$

$-4m^2x + 8mxn + 140n^2x$

$-4x(m + 5n)(m - 7n)$