

Factoring Polynomials Puzzle

Name: _____
Date: _____

Draw a line to the correct answer.

$$8x^6 - 19x^3 - 27 \quad \blacksquare \quad \blacksquare \quad (x - 3)(x^2 + 3x + 9)$$

$$x^3 - 4x^2 + 4x \quad \blacksquare \quad \blacksquare \quad (x^2 - 2)(x^2 + 2)(5x^2 - 4)(5x^2 + 4)$$

$$x^3 + 2x^2 - 15x \quad \blacksquare \quad \blacksquare \quad (x^2 - 2)(x + 1)(x - 1)$$

$$x^6 - 1 \quad \blacksquare \quad \blacksquare \quad (x^2 - 5)(5x^2 - 1)(5x^2 + 1)$$

$$4x^8 - 41x^4 + 100 \quad \blacksquare \quad \blacksquare \quad x(x - 2)^2$$

$$x^4 - x^2 - 72 \quad \blacksquare \quad \blacksquare \quad (x - 1)(x^2 + x + 1)(x + 1)(x^2 - x + 1)$$

$$25x^6 - 125x^4 - x^2 + 5 \quad \blacksquare \quad \blacksquare \quad (x^2 - 2)(x^2 + 2)(2x^2 - 5)(2x^2 + 5)$$

$$x^3 - 27 \quad \blacksquare \quad \blacksquare \quad x(x + 5)(x - 3)$$

$$x^2 - 3x^2 + 2 \quad \blacksquare \quad \blacksquare \quad (x^2 - x + 1)(x + 1)(2x - 3)(4x^2 + 6x + 9)$$

$$25x^8 - 116x^2 + 64 \quad \blacksquare \quad \blacksquare \quad (x^2 + 8)(x + 3)(x - 3)$$