



## Factoring Cubics

Name: \_\_\_\_\_

Date: \_\_\_\_\_ Score: \_\_\_\_\_

$$x^3 - 49x + 120$$

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

$$8x^2 + 64x$$

$$12x^3 + 91x^2 + 39x - 70$$

$$7x^2 + 49x$$

$$x^3 - 5x^2 - 10x - 28$$

$$x^3 - 7x^2 - 6x - 16$$

$$4x^2 - 16x$$

$$x^3 - x^2 + 4x + 6$$

$$48x^3 - 322x^2 - 143x + 315$$



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$$\begin{array}{ll}x^3 - 49x + 120 & x^3 + 9x^2 - x - 9 \\(x - 3)(x - 5)(x + 8) & (x - 1)(x + 1)(x + 9)\end{array}$$

$$\begin{array}{ll}8x^2 + 64x & 12x^3 + 91x^2 + 39x - 70 \\8x(x + 8) & (4x + 5)(x + 7)(3x - 2)\end{array}$$

$$\begin{array}{ll}7x^2 + 49x & x^3 - 5x^2 - 10x - 28 \\7x(x + 7) & (x - 7)(x^2 + 2x + 4)\end{array}$$

$$\begin{array}{ll}x^3 - 7x^2 - 6x - 16 & 4x^2 - 16x \\(x - 8)(x^2 + x + 2) & 4x(x - 4)\end{array}$$

$$\begin{array}{ll}x^3 - x^2 + 4x + 6 & 48x^3 - 322x^2 - 143x + 315 \\(x + 1)(x^2 - 2x + 6) & (8x + 9)(x - 7)(6x - 5)\end{array}$$