

WS 5.0C - Factoring Quadratic Expressions

Factor each completely.

1) $10n^3 - 22n^2 + 4n$

2) $6k^3 + 10k^2$

3) $6n^3 - 8n^2 - 30n$

4) $9n^3 - 6n^2 - 15n$

5) $4x^2 + 22x + 10$

6) $6k^3 + 14k^2 - 12k$

$$7) 6m^2 - 15m - 36$$

$$8) 10m^4 - 6m^3$$

$$9) 8m^3 - 16m^2 + 6m$$

$$10) 12n^3 + 3n^2 - 9n$$

$$11) 8x^2 - 26x - 24$$

$$12) 8k^3 - 18k^2 + 4k$$

$$13) 5n^2 - 245$$

$$14) 6p^3 - 96p$$

Solving Proportions with Quadratics

$$\textcircled{1} \quad \frac{3}{x+1} = \frac{x+3}{8}$$

$$\textcircled{2} \quad \frac{5}{x+1} = \frac{x+4}{10}$$

$$\textcircled{3} \quad \frac{x-4}{3} = \frac{12}{x-4}$$

$$\textcircled{4} \quad \frac{25}{2x} = \frac{x}{2}$$

$$\textcircled{5} \quad \frac{x}{2} = \frac{9}{x-3}$$

$$\textcircled{6} \quad \frac{x+5}{2} = \frac{18}{x+5}$$

$$\textcircled{7} \quad \frac{3}{x} = \frac{3x}{9}$$

$$\textcircled{8} \quad \frac{x+3}{3} = \frac{8}{x-2}$$

$$\textcircled{9} \quad \frac{x-5}{4} = \frac{-3}{x+3}$$

$$\textcircled{10} \quad \frac{4}{x+3} = \frac{x+3}{16}$$

$\textcircled{11}$

$$\textcircled{12} \quad \frac{3}{x+4} = \frac{x+2}{5}$$