

# Solving By Factoring

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Date \_\_\_\_\_

**Solve each equation by factoring.**

1)  $n^2 - 6n - 7 = 0$

2)  $8v^2 - 36v + 16 = 0$

3)  $3b^2 + 13b + 4 = 0$

4)  $8x^2 - 32x + 22 = -2$

5)  $3n^2 - 8n - 27 = 8$

6)  $a^2 + 12a = -36$

$$7) \ 5k^2 = 4 + k$$

$$8) \ 5x^2 - 61x + 168 = 5x - x^2$$

$$9) \ 7x^2 = 105 - 14x$$

$$10) \ 4p^2 - 12p - 10 = -p^2 - 1$$

$$11) \ 28n^2 + 4n - 38 = -6 + 8n^2 - 8n$$

$$12) \ 14n^2 + 6n = 2 - 2n + 4n^2$$

## Answers to Solving By Factoring

1)  $\{7, -1\}$

2)  $\left\{\frac{1}{2}, 4\right\}$

3)  $\left\{-\frac{1}{3}, -4\right\}$

4)  $\{3, 1\}$

5)  $\left\{-\frac{7}{3}, 5\right\}$

6)  $\{-6\}$

7)  $\left\{-\frac{4}{5}, 1\right\}$

8)  $\{7, 4\}$

9)  $\{-5, 3\}$

10)  $\left\{-\frac{3}{5}, 3\right\}$

11)  $\left\{-\frac{8}{5}, 1\right\}$

12)  $\left\{\frac{1}{5}, -1\right\}$