

Solving Quadratics

Date _____ Period _____

Solve each equation by factoring.

1) $(x + 4)(x + 2) = 0$

2) $(x + 2)(x - 4) = 0$

3) $(x + 2)(5x + 4) = 0$

4) $x^2 + 2x - 15 = 0$

5) $r^2 - 4r + 4 = 0$

6) $x^2 + 6x + 8 = 0$

7) $a^2 - a - 6 = 0$

8) $a^2 + 5a + 6 = 0$

Solve each equation by taking square roots.

9) $100x^2 - 9 = 91$

10) $16n^2 - 2 = 7$

11) $2k^2 = 32$

12) $-7b^2 = -175$

Solve each equation by factoring.

13) $a^2 - 8a = -12$

14) $6x^2 = 30x$

15) $3b^2 + 24b + 28 = -b$

16) $5v^2 + 31v + 12 = 8v$

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Date _____ Period _____

Solve each equation by factoring.

1) $(x + 4)(x + 2) = 0$

$\{-4, -2\}$

2) $(x + 2)(x - 4) = 0$

$\{-2, 4\}$

3) $(x + 2)(5x + 4) = 0$

$\left\{-2, -\frac{4}{5}\right\}$

4) $x^2 + 2x - 15 = 0$

$\{-5, 3\}$

5) $r^2 - 4r + 4 = 0$

$\{2\}$

6) $x^2 + 6x + 8 = 0$

$\{-4, -2\}$

7) $a^2 - a - 6 = 0$

$\{3, -2\}$

8) $a^2 + 5a + 6 = 0$

$\{-2, -3\}$

Solve each equation by taking square roots.

9) $100x^2 - 9 = 91$

$$\{1, -1\}$$

10) $16n^2 - 2 = 7$

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

11) $2k^2 = 32$

$$\{4, -4\}$$

12) $-7b^2 = -175$

$$\{5, -5\}$$

Solve each equation by factoring.

13) $a^2 - 8a = -12$

$$\{2, 6\}$$

14) $6x^2 = 30x$

$$\{5, 0\}$$

15) $3b^2 + 24b + 28 = -b$

$$\left\{-\frac{4}{3}, -7\right\}$$

16) $5v^2 + 31v + 12 = 8v$

$$\left\{-\frac{3}{5}, -4\right\}$$