

Using the Quadratic Formula

Solve each equation with the quadratic formula.

1) $m^2 - 5m - 14 = 0$

2) $b^2 - 4b + 4 = 0$

3) $2m^2 + 2m - 12 = 0$

4) $2x^2 - 3x - 5 = 0$

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

6) $2x^2 + 3x - 20 = 0$

7) $4b^2 + 8b + 7 = 4$

8) $2m^2 - 7m - 13 = -10$

$$9) 2x^2 - 3x - 15 = 5$$

$$10) x^2 + 2x - 1 = 2$$

$$11) 2k^2 + 9k = -7$$

$$12) 5r^2 = 80$$

$$13) 2x^2 - 36 = x$$

$$14) 5x^2 + 9x = -4$$

$$15) k^2 - 31 - 2k = -6 - 3k^2 - 2k$$

$$16) 9n^2 = 4 + 7n$$

$$17) 8n^2 + 4n - 16 = -n^2$$

$$18) 8n^2 + 7n - 15 = -7$$

Using the Quadratic Formula

Solve each equation with the quadratic formula.

1) $m^2 - 5m - 14 = 0$

$\{7, -2\}$

2) $b^2 - 4b + 4 = 0$

$\{2\}$

3) $2m^2 + 2m - 12 = 0$

$\{2, -3\}$

4) $2x^2 - 3x - 5 = 0$

$\{\frac{5}{2}, -1\}$

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

$\{-1, -3\}$

6) $2x^2 + 3x - 20 = 0$

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

7) $4b^2 + 8b + 7 = 4$

$\{-\frac{1}{2}, -\frac{3}{2}\}$

8) $2m^2 - 7m - 13 = -10$

$\{\frac{7 + \sqrt{73}}{4}, \frac{7 - \sqrt{73}}{4}\}$

$$9) 2x^2 - 3x - 15 = 5$$

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

$$10) x^2 + 2x - 1 = 2$$

$$\{1, -3\}$$

$$11) 2k^2 + 9k = -7$$

$$\left\{-1, -\frac{7}{2}\right\}$$

$$12) 5r^2 = 80$$

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

$$13) 2x^2 - 36 = x$$

$$\left\{\frac{9}{2}, -4\right\}$$

$$14) 5x^2 + 9x = -4$$

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

$$15) k^2 - 31 - 2k = -6 - 3k^2 - 2k$$

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

$$16) 9n^2 = 4 + 7n$$

$$\left\{\frac{7 + \sqrt{193}}{18}, \frac{7 - \sqrt{193}}{18}\right\}$$

$$17) 8n^2 + 4n - 16 = -n^2$$

$$\left\{\frac{-2 + 2\sqrt{37}}{9}, \frac{-2 - 2\sqrt{37}}{9}\right\}$$

$$18) 8n^2 + 7n - 15 = -7$$

$$\left\{\frac{-7 + \sqrt{305}}{16}, \frac{-7 - \sqrt{305}}{16}\right\}$$