

Solving Quadratics Using the Formula

Date _____

Solve each equation with the quadratic formula.

1) $2n^2 + n - 21 = 0$

2) $r^2 + 2r - 3 = 0$

3) $2k^2 + k - 15 = 0$

4) $n^2 - 4n - 21 = 0$

5) $2n^2 - 3n - 20 = 0$

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

7) $5n^2 - 15n - 24 = 4n^2 - 5n$

8) $11v^2 + 12v = 5v^2 - 6$

9) $13v^2 - 12v - 85 = 12v^2$

10) $4n^2 - 8 = 4n$

11) $n^2 - 3n = 40$

12) $x^2 - 7x = 5x + 28$

13) $8m^2 - m - 19 = -9m$

14) $4n^2 + 8n - 11 = -2$

15) $-4x^2 + 4x + 3 = -3$

16) $2v^2 - 33 = 3v + 2$

17) $-3x^2 + x + 49 = 5$

18) $9b^2 + 8b - 19 = 9b$

Solving Quadratics Using the Formula

Solve each equation with the quadratic formula.

1) $2n^2 + n - 21 = 0$

$\{3, -3.5\}$

2) $r^2 + 2r - 3 = 0$

$\{1, -3\}$

3) $2k^2 + k - 15 = 0$

$\{2.5, -3\}$

4) $n^2 - 4n - 21 = 0$

$\{7, -3\}$

5) $2n^2 - 3n - 20 = 0$

$\{4, -2.5\}$

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

$\{0.5, -1\}$

7) $5n^2 - 15n - 24 = 4n^2 - 5n$

$\{12, -2\}$

8) $11v^2 + 12v = 5v^2 - 6$

$\{-1\}$

9) $13v^2 - 12v - 85 = 12v^2$

$\{17, -5\}$

10) $4n^2 - 8 = 4n$

$\{2, -1\}$

11) $n^2 - 3n = 40$

$\{8, -5\}$

12) $x^2 - 7x = 5x + 28$

$\{14, -2\}$

13) $8m^2 - m - 19 = -9m$

$\left\{ \frac{-2 + \sqrt{42}}{4}, \frac{-2 - \sqrt{42}}{4} \right\}$

14) $4n^2 + 8n - 11 = -2$

$\left\{ \frac{-2 + \sqrt{13}}{2}, \frac{-2 - \sqrt{13}}{2} \right\}$

15) $-4x^2 + 4x + 3 = -3$

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

16) $2v^2 - 33 = 3v + 2$

$\left\{ 5, -\frac{7}{2} \right\}$

17) $-3x^2 + x + 49 = 5$

$\left\{ -\frac{11}{3}, 4 \right\}$

18) $9b^2 + 8b - 19 = 9b$

$\left\{ \frac{1 + \sqrt{685}}{18}, \frac{1 - \sqrt{685}}{18} \right\}$

Solving Quadratics Using the Formula

Date _____

Solve each equation with the quadratic formula.

1) $2r^2 - 3r - 14 = 0$

2) $2n^2 + 5n - 18 = 0$

3) $2x^2 - x - 1 = 0$

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

5) $v^2 - 4v - 12 = 0$

6) $n^2 + 5n + 6 = 0$

7) $4k^2 - 12k = -5$

8) $-4x^2 - 70 = -12x - 9x^2 - 5$

9) $-6p^2 = -9p^2 + 15 + 4p$

10) $5x^2 - 50 = 2x + 1$

11) $-4n^2 = 9 - 8n^2$

12) $17x^2 - 8x = -2 - x + 12x^2$

13) $3x^2 - 32 = x - 2$

14) $7x^2 + 8x = 3x^2 + 50 - 2x$

15) $k^2 + 19 = -10k$

16) $2m^2 + 7m - 35 = 4m$

17) $3x^2 - 4x = 4$

18) $-3r^2 + 13r = 5r - 91$

Solving Quadratics Using the Formula

Date _____

Solve each equation with the quadratic formula.

1) $2r^2 - 3r - 14 = 0$

$\{3.5, -2\}$

2) $2n^2 + 5n - 18 = 0$

$\{2, -4.5\}$

3) $2x^2 - x - 1 = 0$

$\{1, -0.5\}$

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

$\{3, -2.5\}$

5) $v^2 - 4v - 12 = 0$

$\{6, -2\}$

6) $n^2 + 5n + 6 = 0$

$\{-2, -3\}$

7) $4k^2 - 12k = -5$

$\left\{\frac{5}{2}, \frac{1}{2}\right\}$

8) $-4x^2 - 70 = -12x - 9x^2 - 5$

$\left\{\frac{13}{5}, -5\right\}$

9) $-6p^2 = -9p^2 + 15 + 4p$

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

10) $5x^2 - 50 = 2x + 1$

$\left\{\frac{17}{5}, -3\right\}$

11) $-4n^2 = 9 - 8n^2$

$\left\{\frac{3}{2}, -\frac{3}{2}\right\}$

12) $17x^2 - 8x = -2 - x + 12x^2$

$\left\{1, \frac{2}{5}\right\}$

13) $3x^2 - 32 = x - 2$

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

14) $7x^2 + 8x = 3x^2 + 50 - 2x$

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

15) $k^2 + 19 = -10k$

$\{-5 + \sqrt{6}, -5 - \sqrt{6}\}$

16) $2m^2 + 7m - 35 = 4m$

$\left\{\frac{7}{2}, -5\right\}$

17) $3x^2 - 4x = 4$

$\left\{2, -\frac{2}{3}\right\}$

18) $-3r^2 + 13r = 5r - 91$

$\left\{-\frac{13}{3}, 7\right\}$

Solving Quadratics Using the Formula

Solve each equation with the quadratic formula.

1) $x^2 + 5x - 14 = 0$

2) $n^2 + 5n + 4 = 0$

3) $x^2 + 2x + 1 = 0$

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

5) $2n^2 - 3n + 1 = 0$

6) $2a^2 - 5a - 12 = 0$

7) $b^2 - 10b - 19 = -7 - 11b$

8) $3x^2 - 98 + 6x = 10 + 6x$

9) $5v^2 - 125 = 0$

10) $12n^2 - 2n - 36 = 6n^2 + 12$

11) $11n^2 + 11n - 75 = 9n^2 - 12$

12) $a^2 - 18a - 13 = -6a$

13) $-x^2 + 7x - 8 = 4$

14) $7n^2 = 13$

15) $2n^2 + 9n - 42 = 4n$

16) $3n^2 + 3n = n + 21$

17) $x^2 - 16 + 3x = 1 + 3x$

18) $-3r^2 + 9r + 22 = 3r + 9$

Solving Quadratics Using the Formula

Solve each equation with the quadratic formula.

1) $x^2 + 5x - 14 = 0$

$\{2, -7\}$

2) $n^2 + 5n + 4 = 0$

$\{-1, -4\}$

3) $x^2 + 2x + 1 = 0$

$\{-1\}$

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

$\{1, -5\}$

5) $2n^2 - 3n + 1 = 0$

$\{1, 0.5\}$

6) $2a^2 - 5a - 12 = 0$

$\{4, -1.5\}$

7) $b^2 - 10b - 19 = -7 - 11b$

$\{3, -4\}$

8) $3x^2 - 98 + 6x = 10 + 6x$

$\{6, -6\}$

9) $5v^2 - 125 = 0$

$\{5, -5\}$

10) $12n^2 - 2n - 36 = 6n^2 + 12$

$\left\{3, -\frac{8}{3}\right\}$

11) $11n^2 + 11n - 75 = 9n^2 - 12$

$\left\{\frac{7}{2}, -9\right\}$

12) $a^2 - 18a - 13 = -6a$

$\{13, -1\}$

13) $-x^2 + 7x - 8 = 4$

$\{3, 4\}$

14) $7n^2 = 13$

$\left\{\frac{\sqrt{91}}{7}, -\frac{\sqrt{91}}{7}\right\}$

15) $2n^2 + 9n - 42 = 4n$

$\left\{\frac{7}{2}, -6\right\}$

16) $3n^2 + 3n = n + 21$

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

17) $x^2 - 16 + 3x = 1 + 3x$

$\{\sqrt{17}, -\sqrt{17}\}$

18) $-3r^2 + 9r + 22 = 3r + 9$

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