

Using the Quadratic Formula

Solve each equation with the quadratic formula.

1) $v^2 + 2v - 8 = 0$

2) $k^2 + 5k - 6 = 0$

3) $2v^2 - 5v + 3 = 0$

4) $2a^2 - a - 13 = 2$

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

6) $b^2 - 4b - 14 = -2$

7) $8n^2 - 4n = 18$

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

9) $10x^2 + 9 = x$

10) $n^2 = 9n - 20$

11) $3a^2 = 6a - 3$

12) $x^2 = -3x + 40$

13) $9x^2 - 11 = 6x$

14) $4a^2 - 8 = a$

15) $14m^2 + 1 = 6m^2 + 7m$

16) $4x^2 + 4x - 8 = 1$

Using the Quadratic Formula

Solve each equation with the quadratic formula.

1) $v^2 + 2v - 8 = 0$

{2, -4}

2) $k^2 + 5k - 6 = 0$

{1, -6}

3) $2v^2 - 5v + 3 = 0$

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

4) $2a^2 - a - 13 = 2$

{3, -\frac{5}{2}}

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

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

6) $b^2 - 4b - 14 = -2$

{6, -2}

7) $8n^2 - 4n = 18$

\left\{\frac{1+\sqrt{37}}{4}, \frac{1-\sqrt{37}}{4}\right\}

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

\left\{\frac{-3+i\sqrt{31}}{8}, \frac{-3-i\sqrt{31}}{8}\right\}

9) $10x^2 + 9 = x$

\left\{\frac{1+i\sqrt{359}}{20}, \frac{1-i\sqrt{359}}{20}\right\}

10) $n^2 = 9n - 20$

{5, 4}

11) $3a^2 = 6a - 3$

{1}

12) $x^2 = -3x + 40$

{5, -8}

13) $9x^2 - 11 = 6x$

\left\{\frac{1+2\sqrt{3}}{3}, \frac{1-2\sqrt{3}}{3}\right\}

14) $4a^2 - 8 = a$

\left\{\frac{1+\sqrt{129}}{8}, \frac{1-\sqrt{129}}{8}\right\}

15) $14m^2 + 1 = 6m^2 + 7m$

\left\{\frac{7+\sqrt{17}}{16}, \frac{7-\sqrt{17}}{16}\right\}

16) $4x^2 + 4x - 8 = 1$

\left\{\frac{-1+\sqrt{10}}{2}, \frac{-1-\sqrt{10}}{2}\right\}