

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

$\left\{\frac{3}{2}, 1\right\}$

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

$\left\{3, -\frac{5}{2}\right\}$

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

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

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

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