

## Solving Quadratics Additional Practice

**Solve each equation by completing the square.**

1)  $k^2 - 4k + 27 = -9$

2)  $6x^2 + 12x - 46 = 2$

3)  $2n^2 + 4n + 61 = 3$

4)  $x^2 - 4x - 103 = -7$

**Solve each equation by taking square roots.**

5)  $9v^2 + 2 = -133$

6)  $2p^2 - 5 = -33$

7)  $2b^2 - 7 = -31$

8)  $4k^2 + 10 = -58$

**Solve each equation with the quadratic formula.**

9)  $11m^2 + 6m = -3$

10)  $4x^2 + 10 = 8x$

11)  $2x^2 + 8 = 5x$

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

## Answers to Solving Quadratics Additional Practice

- 1)  $\{2 + 4i\sqrt{2}, 2 - 4i\sqrt{2}\}$       2)  $\{2, -4\}$       3)  $\{-1 + 2i\sqrt{7}, -1 - 2i\sqrt{7}\}$   
4)  $\{12, -8\}$       5)  $\{i\sqrt{15}, -i\sqrt{15}\}$       6)  $\{i\sqrt{14}, -i\sqrt{14}\}$       7)  $\{2i\sqrt{3}, -2i\sqrt{3}\}$   
8)  $\{i\sqrt{17}, -i\sqrt{17}\}$       9)  $\left\{\frac{-3 + 2i\sqrt{6}}{11}, \frac{-3 - 2i\sqrt{6}}{11}\right\}$       10)  $\left\{\frac{2 + i\sqrt{6}}{2}, \frac{2 - i\sqrt{6}}{2}\right\}$   
11)  $\left\{\frac{5 + i\sqrt{39}}{4}, \frac{5 - i\sqrt{39}}{4}\right\}$       12)  $\left\{\frac{-1 + i\sqrt{15}}{4}, \frac{-1 - i\sqrt{15}}{4}\right\}$