

## Quadratic Equations

**Simplify.**

1)  $\sqrt{8}$

2)  $\sqrt{288}$

3)  $\sqrt{200}$

4)  $\sqrt{112}$

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

5)  $6x^2 - 6 = 564$

6)  $4v^2 - 9 = 355$

**Solve each equation by factoring.**

7)  $2x^2 - 98 = 0$

8)  $p^2 + 48 = 14p$

9)  $7n^2 + 1 = -8n$

10)  $3b^2 - b = 4$

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

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

12)  $9v^2 - 5v = 5$

## Answers to Quadratic Equations

1)  $2\sqrt{2}$

2)  $12\sqrt{2}$

3)  $10\sqrt{2}$

4)  $4\sqrt{7}$

5)  $\{9.747, -9.747\}$

6)  $\{9.539, -9.539\}$

7)  $\{-7, 7\}$

8)  $\{6, 8\}$

9)  $\left\{-\frac{1}{7}, -1\right\}$

10)  $\left\{\frac{4}{3}, -1\right\}$

11)  $\{-3 + \sqrt{6}, -3 - \sqrt{6}\}$

12)  $\left\{\frac{5 + \sqrt{205}}{18}, \frac{5 - \sqrt{205}}{18}\right\}$