

**Solving Quadratic Equations**

Date \_\_\_\_\_ Period \_\_\_\_\_

**Solve each equation by factoring.**

1)  $(p - 1)(p - 5) = 0$

2)  $r^2 + 8r = 0$

3)  $x^2 - 10x + 21 = 0$

4)  $3n^2 - 28n + 32 = 0$

5)  $2x^2 + 3x - 35 = 0$

6)  $10a^2 + 42a - 40 = 0$

7)  $9m^2 - 60m + 75 = 0$

8)  $15p^2 + 8p - 33 = -1 + 3p^2$

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

9)  $4n^2 + 11n + 7 = 0$

10)  $a^2 - 16 = 0$

11)  $9v^2 + 7v + 4 = 0$

12)  $m^2 + 9m - 22 = 0$

13)  $5p^2 + 3p - 4 = 0$

14)  $2x^2 - 72 = 0$

15)  $4v^2 + 9 = 0$

16)  $4r^2 - 5 = 12r + 5$

## Solving Quadratic Equations

Date \_\_\_\_\_ Period \_\_\_\_\_

**Solve each equation by factoring.**

1)  $(p - 1)(p - 5) = 0$

{1, 5}

2)  $r^2 + 8r = 0$

{-8, 0}

3)  $x^2 - 10x + 21 = 0$

{7, 3}

4)  $3n^2 - 28n + 32 = 0$

{\frac{4}{3}, 8}

5)  $2x^2 + 3x - 35 = 0$

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

6)  $10a^2 + 42a - 40 = 0$

\left\{\frac{4}{5}, -5\right\}

7)  $9m^2 - 60m + 75 = 0$

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

8)  $15p^2 + 8p - 33 = -1 + 3p^2$

\left\{\frac{4}{3}, -2\right\}

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

9)  $4n^2 + 11n + 7 = 0$

{-1, -1.75}

10)  $a^2 - 16 = 0$

{4, -4}

11)  $9v^2 + 7v + 4 = 0$

No solution.

12)  $m^2 + 9m - 22 = 0$

{2, -11}

13)  $5p^2 + 3p - 4 = 0$

\left\{\frac{-3 + \sqrt{89}}{10}, \frac{-3 - \sqrt{89}}{10}\right\}

14)  $2x^2 - 72 = 0$

{6, -6}

15)  $4v^2 + 9 = 0$

No solution.

16)  $4r^2 - 5 = 12r + 5$

\left\{\frac{3 + \sqrt{19}}{2}, \frac{3 - \sqrt{19}}{2}\right\}