

## Quadratics Worksheet

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

**Solve each equation by factoring.**

1)  $x^2 = 48 - 2x$

2)  $7m^2 + 18 = -27m$

3)  $3p^2 + 4 = -8p$

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

4)  $2b^2 = 4b + 8$

5)  $3x^2 = -8$

6)  $12x^2 + 1 = 12x$

7)  $7n^2 - 21 = 0$

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

8)  $m^2 + 18m + 37 = -7$

9)  $x^2 - 8x - 38 = -5$

$$10) b^2 - 20b + 73 = 3$$

$$11) x^2 + 8x - 59 = 6$$

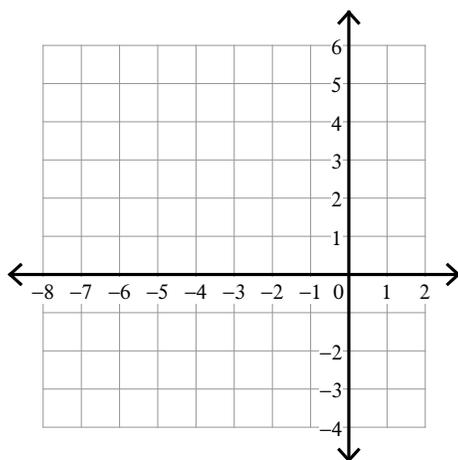
$$12) x^2 - 14x - 99 = -6$$

$$13) x^2 + 2x - 7 = 8$$

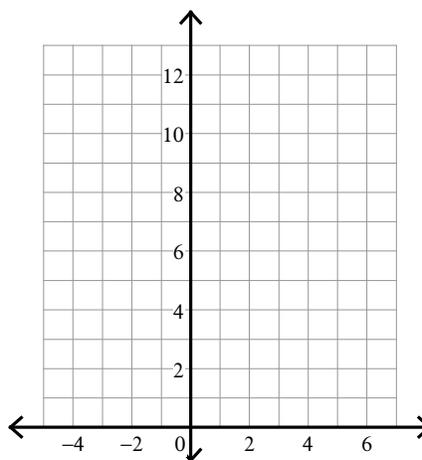
$$14) m^2 - 8m - 99 = -6$$

**Sketch the graph of each function.**

$$15) y = 2x^2 + 8x + 5$$



$$16) y = 2x^2 - 4x + 6$$



## Quadratics Worksheet

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

**Solve each equation by factoring.**

1)  $x^2 = 48 - 2x$

 $\{-8, 6\}$ 

2)  $7m^2 + 18 = -27m$

 $\{-\frac{6}{7}, -3\}$ 

3)  $3p^2 + 4 = -8p$

 $\{-\frac{2}{3}, -2\}$ **Solve each equation with the quadratic formula.**

4)  $2b^2 = 4b + 8$

 $\{3.236, -1.236\}$ 

5)  $3x^2 = -8$

No solution.

6)  $12x^2 + 1 = 12x$

 $\{0.908, 0.092\}$ 

7)  $7n^2 - 21 = 0$

 $\{1.732, -1.732\}$ **Solve each equation by completing the square.**

8)  $m^2 + 18m + 37 = -7$

 $\{-2.917, -15.083\}$ 

9)  $x^2 - 8x - 38 = -5$

 $\{11, -3\}$

$$10) b^2 - 20b + 73 = 3$$

$$\{15.477, 4.523\}$$

$$11) x^2 + 8x - 59 = 6$$

$$\{5, -13\}$$

$$12) x^2 - 14x - 99 = -6$$

$$\{18.916, -4.916\}$$

$$13) x^2 + 2x - 7 = 8$$

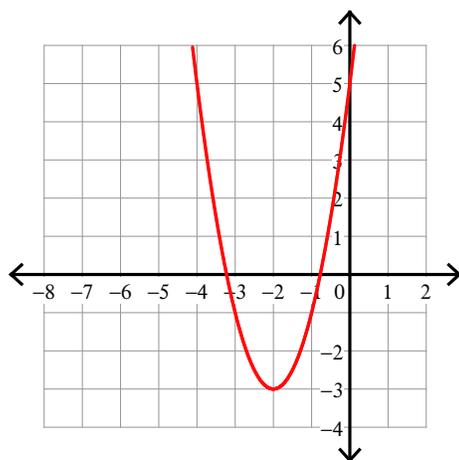
$$\{3, -5\}$$

$$14) m^2 - 8m - 99 = -6$$

$$\{14.44, -6.44\}$$

**Sketch the graph of each function.**

$$15) y = 2x^2 + 8x + 5$$



$$16) y = 2x^2 - 4x + 6$$

