

Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

## Quadratic Functions

### Practice 10-2

Find the equation of the axis of symmetry and the coordinates of the vertex of the graph of each function.

1.  $y = x^2 - 10x + 2$

2.  $y = x^2 + 12x - 9$

3.  $y = 3x^2 + 18x + 9$

4.  $y = 3x^2 + 3$

5.  $y = 0.5x^2 + 4x - 2$

6.  $y = -4x^2 + 24x + 6$

Graph each function. Label the axis of symmetry, the vertex, and the  $y$ -intercept.

7.  $y = x^2 - 6x + 4$

8.  $y = x^2 + 4x - 1$

9.  $y = x^2 + 2x + 1$

10.  $y = -x^2 - 4x + 4$

11.  $y = -2x^2 - 8x + 5$

12.  $y = 4x^2 - 16x + 10$

13.  $y = 4x^2 + 8x$

14.  $y = -3x^2 + 6$

Graph each quadratic inequality.