

## Vertex WS

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

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

1)  $x^2 + 12x + 27 = 0$

2)  $5x^2 - 7x = 52$

**Find the vertex.**

3)  $y = x^2 + 6x + 10$

4)  $y = 3x^2 + 6x + 2$

5)  $y = -x^2 - 4x - 8$