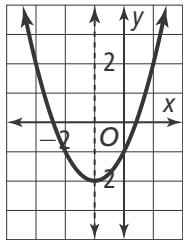
Name _____

8-3 Reteach to Build Understanding

Quadratic Functions in Standard Form

1. Fill in the matching part on the graph to the right.



The *y*-intercept is _____.

The axis of symmetry is _____.

The vertex is _____.

2. Circle the correct answer.

The equation for finding the x-coordinate of the axis of symmetry is:

c $\quad -\frac{b}{2a}$ $\quad f(x) = ax^2 + bx + c$

3. For the graph of $f(x) = -3x^2 + 6x - 1$, draw lines from each part of the parabola to the correct answer.

y-intercept	1
axis of symmetry	−1
x-coordinate of the vertex	$x = 1$
y-coordinate of the vertex	(1, 2)
vertex	2

4. Chen predicted that the function $f(x) = 1.5x^2 - 9x + 7$ would have an axis of symmetry at $x = 3$ with the vertex at (3, 7). Do you agree or disagree with Chen? Explain.

5. Fill in the missing spaces in the table below.

Features	$f(x) = -2x^2 + 8x + 1$	$g(x) = 3x^2 + 6x - 4$
y-intercept		(0, −4)
vertex	(−2,_____)	(_____, −7)
axis of symmetry	$x = -2$	
maximum or minimum value		minimum
opens upward or downward		upward