## Intermediate Algebra

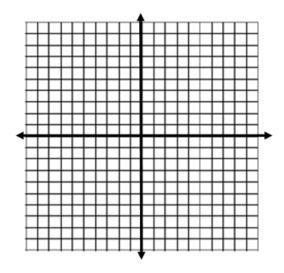
<u>Learning Target</u>: I can graph quadratic functions and demonstrate understanding of the relationship between different forms of quadratic equations and their graphs.

Find the vertex of each function and then graph.

1) 
$$y = 2x^2 + 4x - 6$$

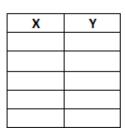
- a. Vertex:
- b. Axis of Symmetry:
- c. Y Intercept:
- d. show work or explain how you found the vertex:

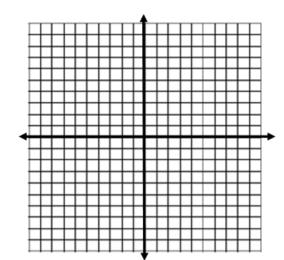
X	Υ



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

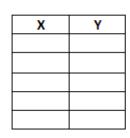
- a. vertex: \_\_\_\_\_
- b. Axis of Symmetry:
- c. Y Intercept:
- d. show work or explain how you found the vertex:

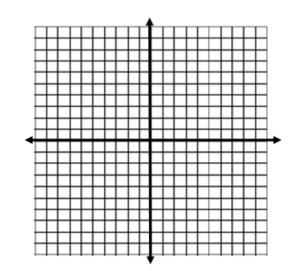




3) 
$$y = -(x-3)(x+1)$$

- a. vertex: \_\_\_\_\_
- b. x-intercepts:\_\_\_\_\_





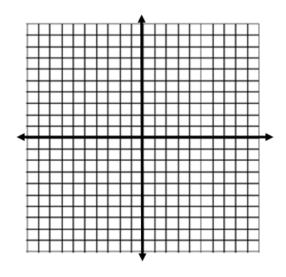
## **4.1** Re-Teach Worksheet Intermediate Algebra

$$y = 2(x - 4)^2 + 5$$

a. vertex: \_\_\_\_\_

b. show work or explain how you found the vertex:

X	Y



Name \_\_\_\_\_

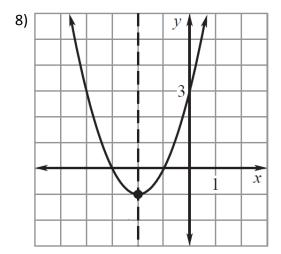
Find the vertex of each function:

4) 
$$y = \frac{1}{4}(x-2)^2 + 6$$
 6)  $y = -4(x-1)(x+5)$  7)  $y = 3x^2 - 12x + 13$ 

6) 
$$y = -4(x-1)(x+5)$$

7) 
$$y = 3x^2 - 12x + 13$$

Choose which quadratic function CANNOT be represented by the shown graph.

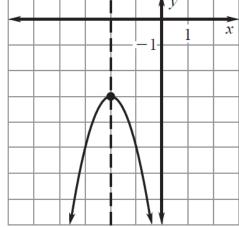


a. 
$$y = (x + 2)^2 - 1$$

b. 
$$y = (x+1)(x+3)$$

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





a. 
$$y = -2(x+2)^2 - 3$$

b. 
$$y = -2(x-2)^2 - 3$$

c. 
$$y = -2x^2 - 8x - 11$$