

4.1 Re-Teach Worksheet

Name Key

Intermediate Algebra

Learning Target: 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: $-1, -8$

b. Axis of Symmetry: $x = -1$

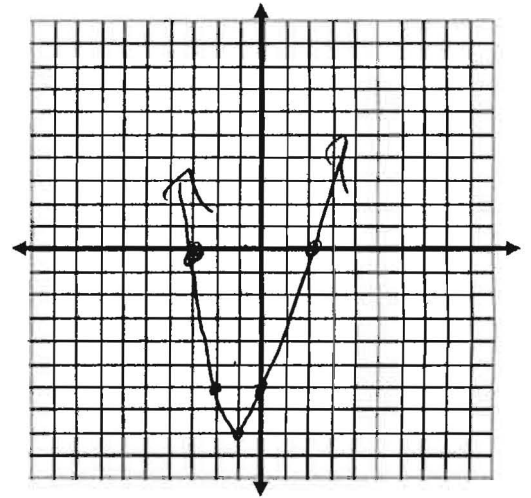
c. Y-Intercept: -6

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

$$x = \frac{-b}{2a} = \frac{-4}{2(2)} = \frac{-4}{4} = -1$$

$$y = -8$$

X	Y



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

a. vertex: $(1, -3)$

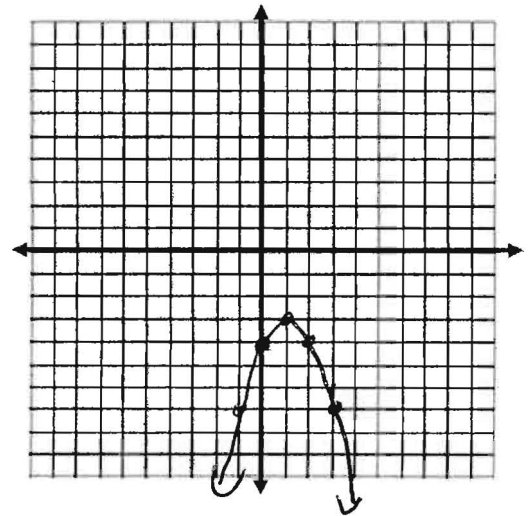
b. Axis of Symmetry: $x = 1$

c. Y-Intercept: -4

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

$$x = \frac{-2}{2(-1)} = \frac{-2}{-2} = 1$$

X	Y



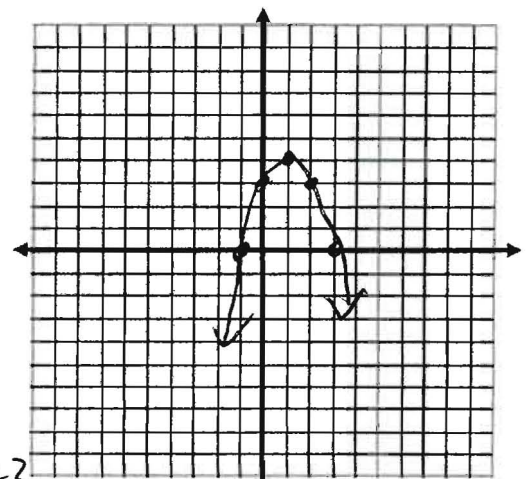
3) $y = -(x-3)(x+1)$

a. vertex: $(1, 4)$

b. x-intercepts: $3, -1$

$$\frac{3 + (-1)}{2} = \frac{2}{2} = 1$$

X	Y



~~$y = -x^2 + 2x - 3$~~ $x^2 - 2x + 3$

$$x = \frac{-2}{2(-1)} = \frac{-2}{-2} = 1$$

4.1 Re-Teach Worksheet
Intermediate Algebra

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

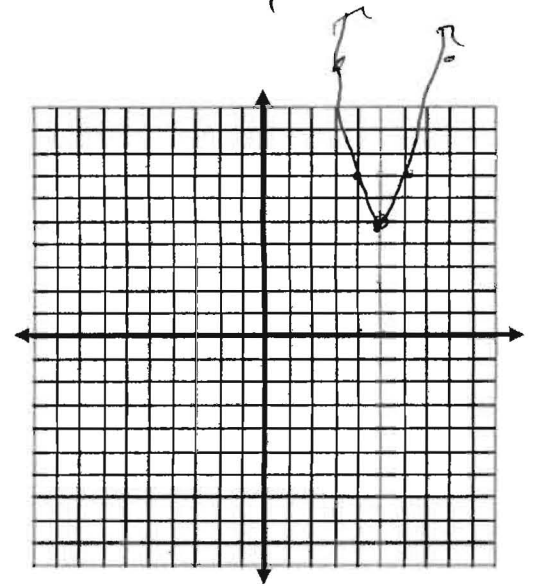
Name Key

a. vertex: 4, 5

X	Y

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

From vertex form



Find the vertex of each function:

4) $y = \frac{1}{4}(x - 2)^2 + 6$

(2, 6)

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

$x = \frac{1 + (-5)}{2} = \frac{-4}{2} = -2$

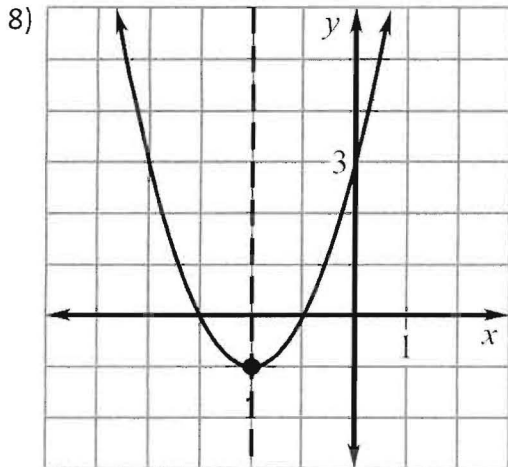
(-2, 36)

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

$\frac{12}{2(3)} = \frac{12}{6} = 2$

(2, 1)

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

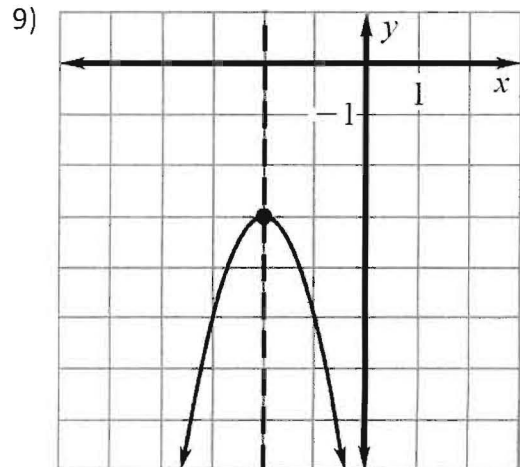


a. $y = (x + 2)^2 - 1$

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

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

not Right



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

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

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

not Right