

10.3 Quadratics in Standard Form

Name: _____

Corrective Assignment

Directions: Use the following functions to find the best answers for #1 - 3.
 $f(x) = -0.5x^2 + 3x + 20.5$; $g(x) = -2(x - 3)^2 + 25$; $h(x) = -(x + 2)(x - 8)$

1) Which function has the highest maximum value?

a) all the same
 b) $f(x)$ and $g(x)$
 c) $f(x)$ and $h(x)$
 d) $g(x)$ and $h(x)$

2) Which function has the highest y-intercept?

a) $f(x)$
 b) $g(x)$
 c) $h(x)$
 d) $f(x)$ and $h(x)$

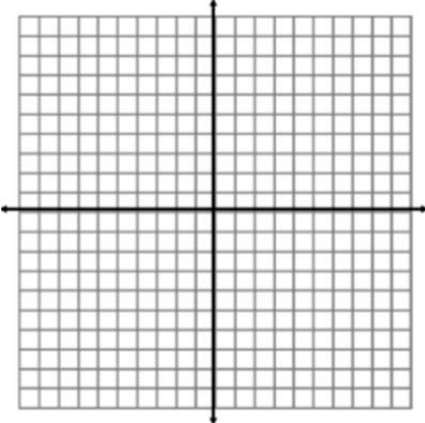
3) Which function is the narrowest?

a) $g(x)$ because the absolute value of its leading coefficient is the greatest.
 b) $f(x)$ because its in standard form.
 c) $h(x)$ because the absolute value of its leading coefficient is the smallest.
 d) They are all the same because they are all quadratics.

Directions: Graph each function. Then answer the questions. Plot the vertex and at least 2 other points, more if possible.

4) $f(x) = 2x^2 - 4x$

Vertex: _____

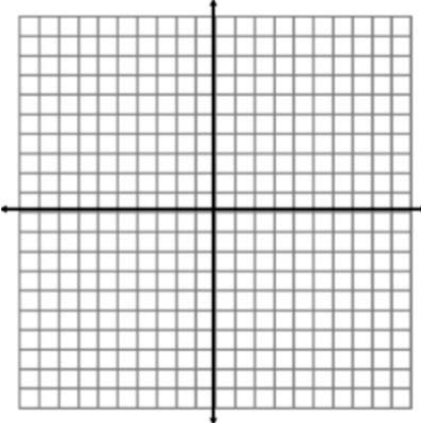


Y-int: _____

X-ints (approx.): _____

5) $f(x) = -x^2 + 8x - 6$

Vertex: _____

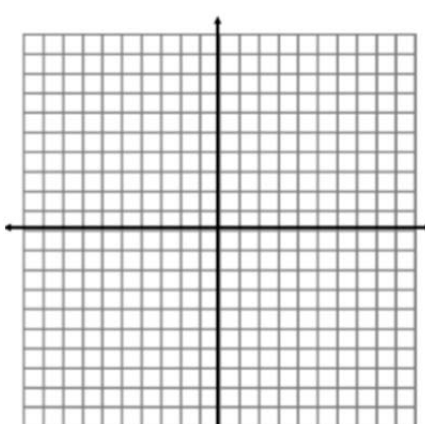


Y-int: _____

X-ints (approx.): _____

6) $f(x) = 0.5x^2 + 4x - 1$

Vertex: _____

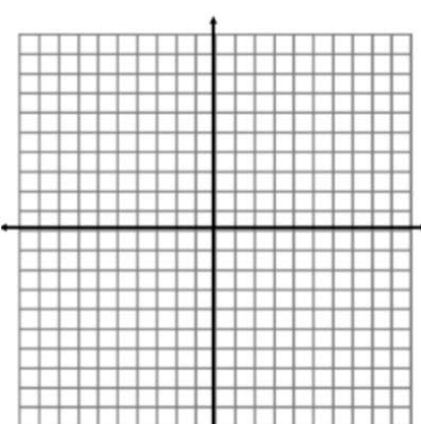


Y-int: _____

X-ints (approx.): _____

7) $f(x) = x^2 + 2x - 1$

Vertex: _____

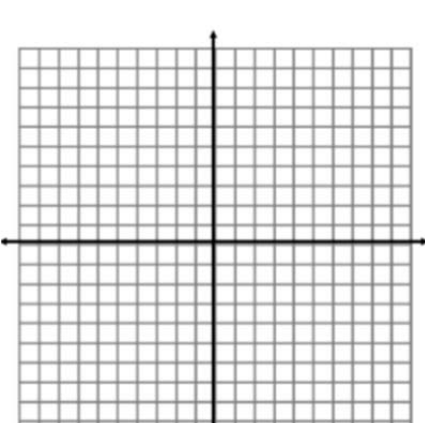


Y-int: _____

X-ints (approx.): _____

8) $f(x) = -2x^2 + 10x - 5$

Vertex: _____

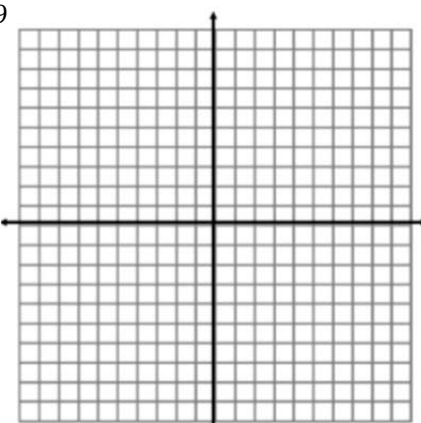


Y-int: _____

X-ints (approx.): _____

9) $f(x) = -0.5x^2 + 6x - 9$

Vertex: _____



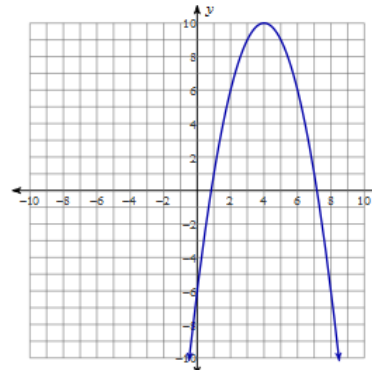
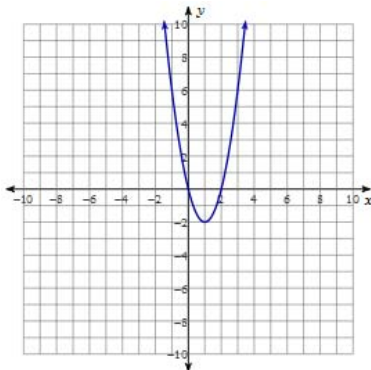
Y-int: _____

X-ints (approx.): _____

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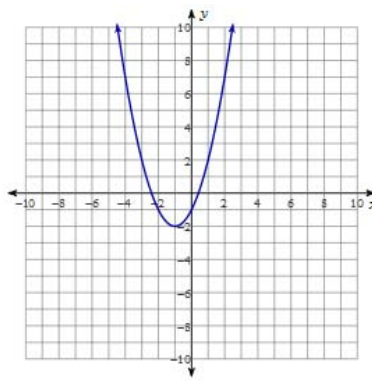
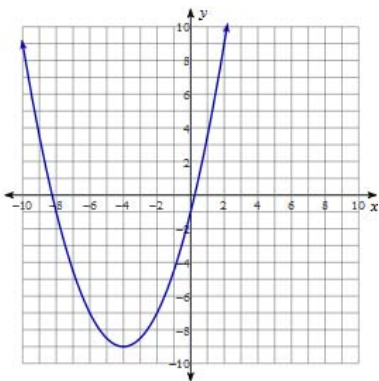
Corrective Assignment Answers

1) A 2) A 3) A



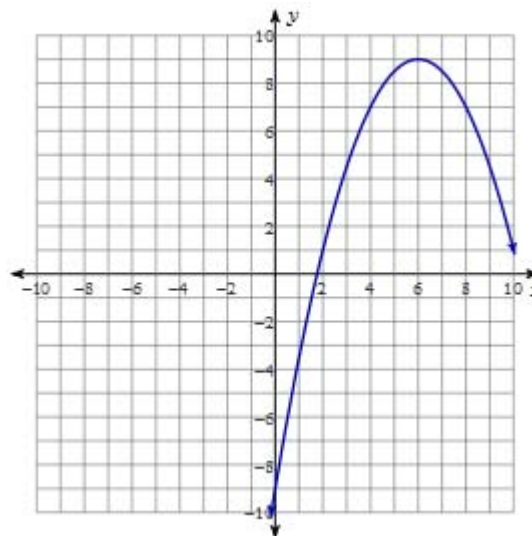
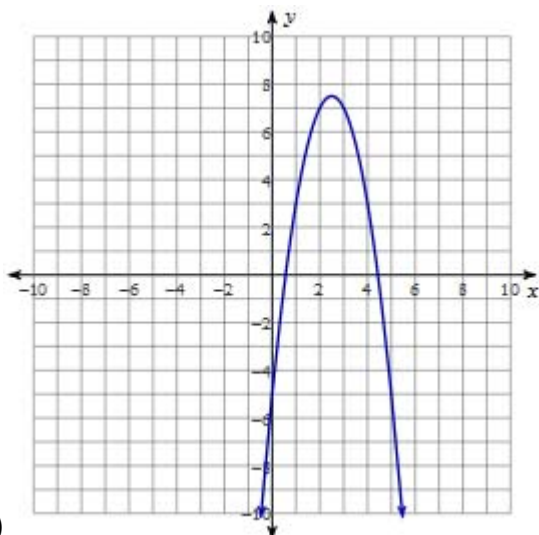
4)
Vertex: (1, -2); Y-int: (0,0); X-int: (0,0) and (2,0)

5)
Vertex: (4, 10); Y-int: (0,-6); X-int: (0,0) and (6,1,0)



6)
Vertex: (-4, -9); Y-int: (0,-1); X-int: (0.2,0) and (-8.1,0)

7)
Vertex: (-1, -2); Y-int: (0,-1); X-int: (-2.4,0) and (0.3,0)



8)
Vertex: (2.5, 7.5); Y-int: (0,-5); X-int: (0.6,0) and (4.4,0)

9)
Vertex: (6, 9); Y-int: (0,-9); X-int: (1.8,0) and (10.2,0)