

Unit 03-06 Quiz

Multiple Choice

Identify the choice that best completes the statement or answers the question.

_____ 1. What are the zeros of the function?

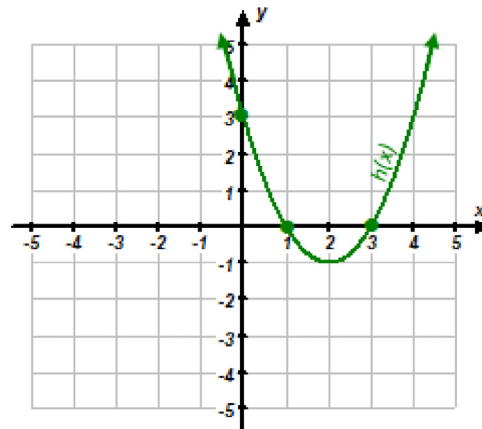
$$f(x) = x^2 - 8x - 20$$

- a. $x = 2$ and $x = -10$
- b. $x = -2$ and $x = 10$
- c. $x = 4$ and $x = -5$
- d. $x = -4$ and $x = 5$

_____ 2. If the zeros of a quadratic function (parabola) are $x = -2$ and $x = 4$, what is the equation of the Axis of Symmetry?

- a. $x = 0$
- b. $x = 1$
- c. $x = 2$
- d. $x = 3$

_____ 3. Consider the graph of the function shown at the right is $h(x)$.



Which of the below options shows the correct intercept form of the graph?

- a. $h(x) = (x - 1)(x - 3)$
- b. $h(x) = (x + 1)(x + 3)$
- c. $h(x) = (x - 2)(x - 1)$
- d. $h(x) = (x + 1)(x + 3)(y + 3)$

_____ 4. A baseball is hit by a batter. The following function describes the height of the baseball as a function of time (t seconds after the ball was struck):

$$h = -16t^2 + 48t + 2$$

What was the maximum height of the ball?



- a. 16 feet
- b. 38 feet
- c. 48 feet
- d. 50 feet

Name: _____

ID: A

5.

If you place one of the foundation points of the St. Louis arch at the origin, you could roughly describe it as a parabola of the equation (where x and y units are both measured in feet):

$$y = -0.00635(x - 315)^2 + 630$$

How tall is the arch?



a. 200 feet tall

b. 315 feet tall

c. 630 feet tall

d. 945 feet tall

Completion

Complete each statement.

6. What is the **largest** zero of the function?

$$f(x) = x^2 - 3x - 10$$

Just enter a single number below for your answer.