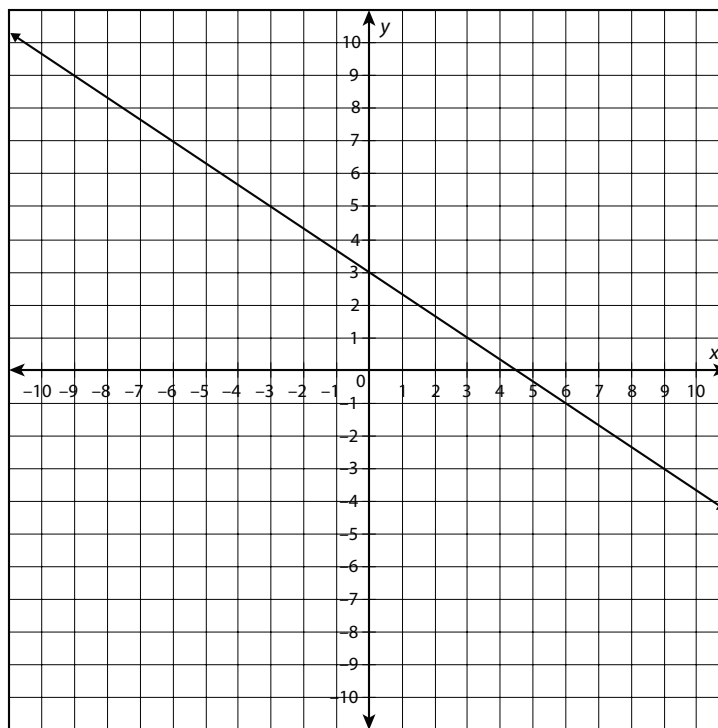


UNIT 5 • COMPARING AND CONTRASTING FUNCTIONS**Lesson 1: Key Features of Functions****Assessment****Progress Assessment**

Circle the letter of the best answer.

1. Identify the end behavior of the following function.



- a. left: approaching ∞ ; right: approaching ∞
b. left: approaching ∞ ; right: approaching $-\infty$
c. left: approaching $-\infty$; right: approaching ∞
d. left: approaching $-\infty$; right: approaching $-\infty$
2. Identify the type of function shown in problem 1.
- a. quadratic
b. exponential
c. linear
d. none of these

continued

Name: _____

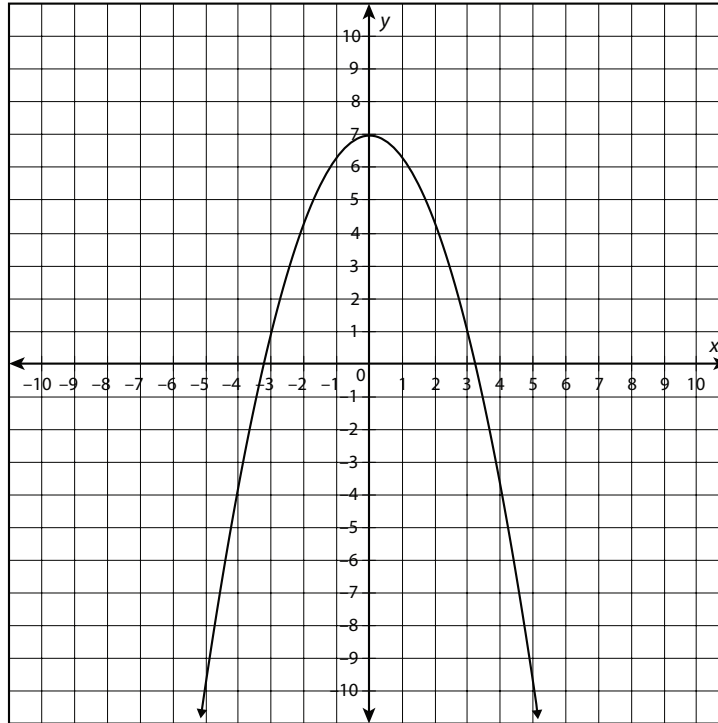
Date: _____

UNIT 5 • COMPARING AND CONTRASTING FUNCTIONS

Lesson 1: Key Features of Functions

Assessment

3. Identify the end behavior of the following function.



- a. left: approaching ∞ ; right: approaching ∞
 - b. left: approaching ∞ ; right: approaching $-\infty$
 - c. left: approaching $-\infty$; right: approaching ∞
 - d. left: approaching $-\infty$; right: approaching $-\infty$
4. Identify the type of function shown in problem 3.
- a. linear
 - b. quadratic
 - c. exponential
 - d. none of these

continued

UNIT 5 • COMPARING AND CONTRASTING FUNCTIONS**Lesson 1: Key Features of Functions****Assessment**

5. Identify the end behavior of the function $f(x) = -(3)^x$.
- left: approaching $-\infty$; right: approaching ∞
 - left: approaching ∞ ; right: approaching $-\infty$
 - left: approaching $-\infty$; right: approaching $y = 0$
 - left: approaching $y = 0$; right: approaching $-\infty$
6. Identify the type of function in problem 5.
- linear
 - quadratic
 - exponential
 - none of these
7. Identify the type of function that has the following key features:
- positive for $x < 3$
 - increasing at a constant rate for all x -values
 - y -intercept at $(0, -4)$
 - no asymptote
- linear
 - exponential
 - quadratic
 - There is not enough information.
8. Identify the type of function that has the following key features:
- y -intercept at $(0, 1)$
 - increasing for all x -values
- linear
 - quadratic
 - exponential
 - There is not enough information.

continued

Name: _____

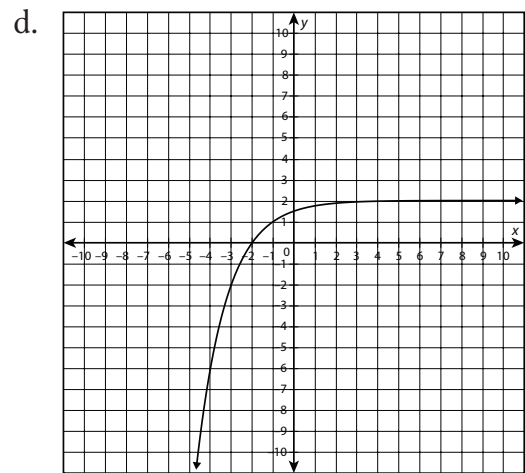
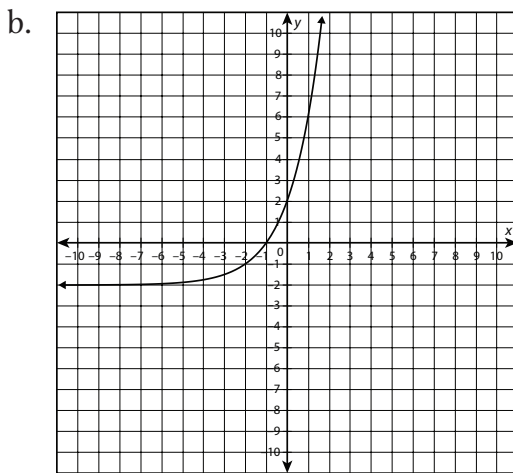
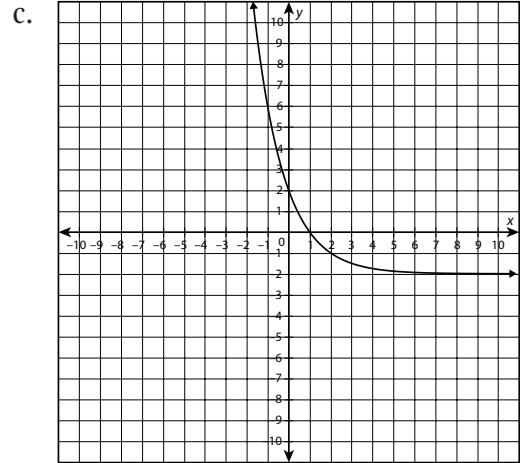
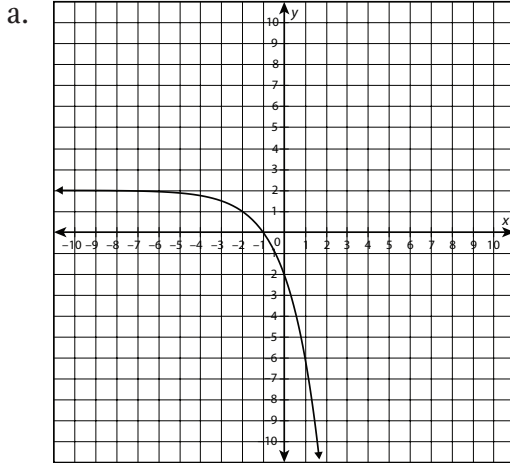
Date: _____

UNIT 5 • COMPARING AND CONTRASTING FUNCTIONS

Lesson 1: Key Features of Functions

Assessment

9. Which of the following graphs has an asymptote at $y = 2$ and a y -intercept at $(0, -2)$?



10. Identify the type of function that has a vertex at $(-1, -4)$ and x -intercepts at $(-3, 0)$ and $(1, 0)$.

a. quadratic

c. exponential

b. linear

d. none of these

11. Why is it impossible to determine the type of graph when given only one intercept (x or y)?