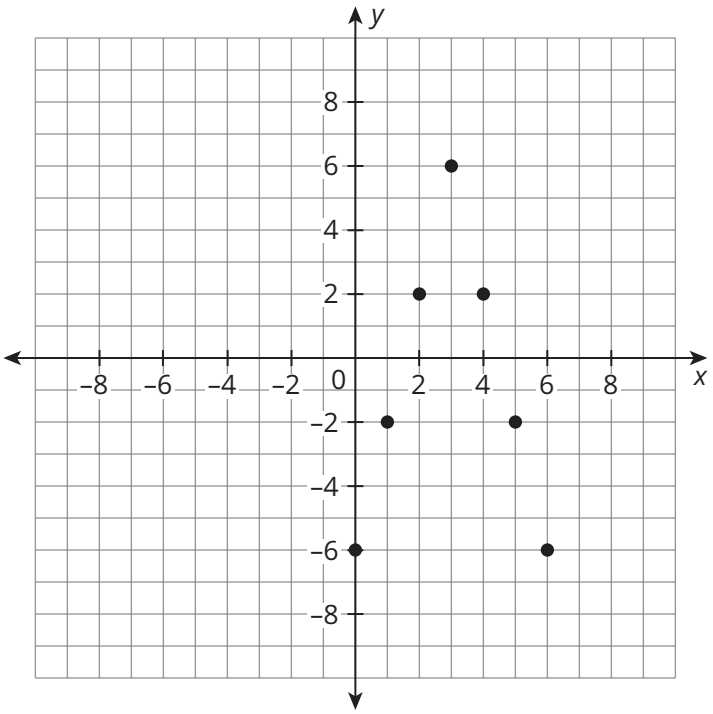
Name _____ Date _____

1 Which characteristics best describe the graph?



a. Is a function
Is discrete
Is exponential
Has an absolute minimum

b. Is a function
Is linear
Is continuous
Has an absolute minimum

c. Is a function
Is a linear absolute value function
Is discrete
Has an absolute maximum

d. Is a function
Is a linear absolute value function
Is continuous
Has an absolute maximum

2 Which is a linear function?

a. $f(x) = x + 2$

b. $f(x) = x^2$

c. $f(x) = 2^x$

d. $f(x) = |2x|$

3 Which type of function is $f(x) = 5^x$?

a. Linear absolute value function

b. Exponential function

c. Quadratic function

d. Linear function

4 Grissom draws different sized spheres in a notebook. He knows there is a relationship between the volume of the sphere and the length of its diameter. Which is the independent quantity in the situation?

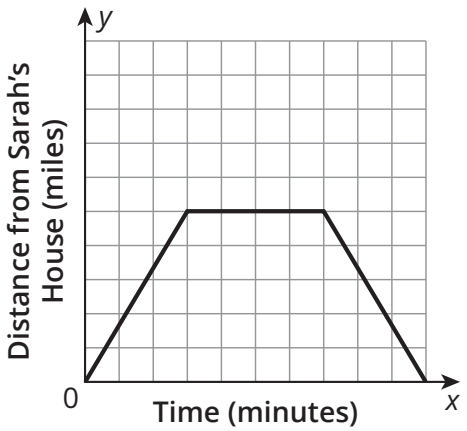
a. Surface area of the sphere

b. Length of the diameter

c. Volume of the sphere

d. Number of spheres Grissom draws

5 Sarah drove to the grocery store. She was at the grocery store for several minutes. Then Sarah drove back to her house. The graph shown represents this scenario. Which is the dependent quantity?



a. Distance to the grocery store, in miles

b. Sarah's house

c. Time, in minutes

d. Distance from Sarah's house, in miles

6 Which best describes the behavior of the function $f(x) = \frac{2}{3}x - 2$?

a. It is constant.

b. It is increasing.

c. It is decreasing.

d. It is both increasing and decreasing.

7 Ling is building a square-shaped chicken run that will go around the perimeter of her chicken coop and give her chickens room to graze freely. Ling calculates the area for the square-shaped chicken run to be 144 square yards. When Ling goes to pick out her fencing, she chooses fencing that comes in 4.5 foot panels. What is the minimum number of panels Ling should buy so that her chickens will have at least 144 square yards of space to graze?

a. 8 panels of fencing

b. 12 panels of fencing

c. 32 panes of fencing

d. 36 panels of fencing

8 Which statement about the function $f(x) = |x + 3|$ is true?

a. It has an absolute minimum.

b. It has an absolute maximum.

c. It has both an absolute minimum and an absolute maximum.

d. It has neither an absolute minimum nor an absolute maximum.

9 Which is an exponential function?

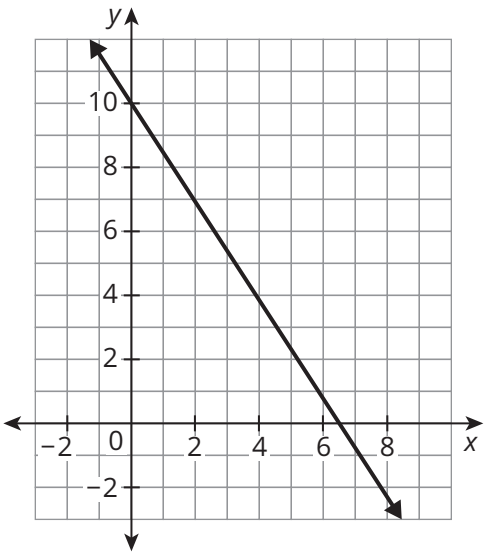
a. $f(x) = 2x + 3$

b. $f(x) = x^2 + 4$

c. $f(x) = -8^x$

d. $f(x) = -|x + 9|$

10 Which of the following coordinate points is not in the solution set for the graph?



a. (0, 10)

b. (7, 0)

c. (4, 4)

d. (6, 1)

11 Which statement about the function $f(x) = x^2 + 2x$ is true?

a. It has an absolute minimum.

b. It has an absolute maximum.

c. It has both an absolute minimum and an absolute maximum.

d. It has neither an absolute minimum nor an absolute maximum.

12 Which is a constant function?

a. $f(x) = -1$

b. $f(x) = 3x^2$

c. $f(x) = 5x$

d. $f(x) = |x - 8|$

13 Which type of function is $f(x) = x^2 - 2x + 6$?

a. Absolute value function

b. Exponential function

c. Quadratic function

d. Linear function