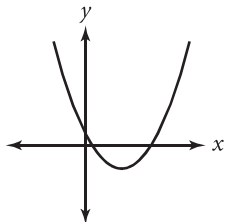


Lesson 4.2 • Function Notation

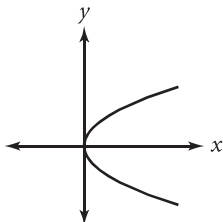
Name _____ Period _____ Date _____

1. Determine whether or not each graph represents a function. Explain how you know.

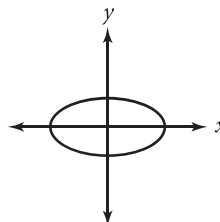
a.



b.



c.



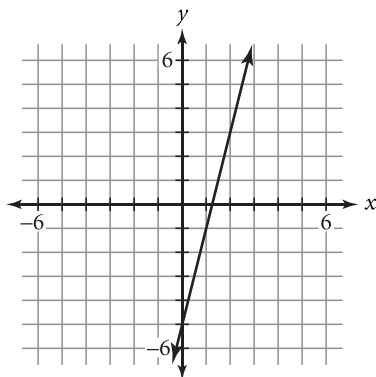
2. Find each of the indicated function values.

a. If $f(x) = -\sqrt{4x+1}$, find $f(-\frac{1}{4})$, $f(0)$, $f(0.75)$, $f(2)$, and $f(12)$.

b. If $f(x) = -x^2 + 3x + 5$, find $f(-3)$, $f(0)$, $f(2)$, $f(5)$, and $f(8)$.

c. If $f(x) = \frac{2}{x-4}$, find $f(-4)$, $f(0)$, $f(5)$, $f(8)$, and $f(24)$.

3. Use the graph below to find each of the following.



a. $f(3) + f(-3)$

b. $f(10) \cdot f(-2)$

c. $f(f(10))$

d. x when $f(x) = 19$

e. x when $f(x) = -3$

f. x when $f(x) = 15$

g. x when $f(x+2) = -9$

h. x when $f(x-3) = 35$

i. x when $f(x+4) = -21$

4. Define variables and write a function that describes each situation.

a. You drive on an interstate highway with your cruise control set at 65 miles per hour and do not need to stop or alter your speed.

b. You rent a small moving van to move your belongings to your new apartment. The rental company charges \$45 a day plus \$0.22 a mile to rent the van.