Algebra IA
Chapter 4 Lesson 4
Evaluating Functions

Use the functions represented by the data sets to answer the questions.

1. {(-3, 2), (-5, 5), (-7, 8), (-9, 11)}

What is the value of y when x = -9?

2. {(8, -1), (6, 0), (4, 1), (2, 2)}

What is the value of f(4)?

3.

x	18	15	12	9
f(x)	-5	0	5	10

What is the value of f(12)?

4.

x	y
-10	6
-9	9
-8	12
-7	15

What is the value of f(-8)?

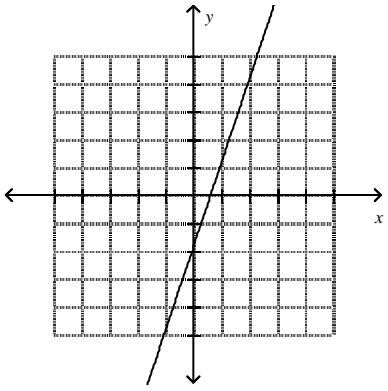
5.

x	y
4	1
6	4
8	7
10	10

What is the value of f(16)?

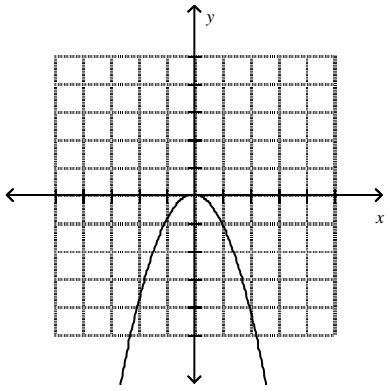
Use the graphs to answer the questions.

6.



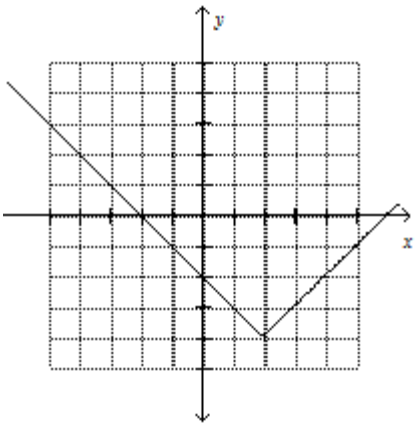
What is the value of y when x = 2?

7.



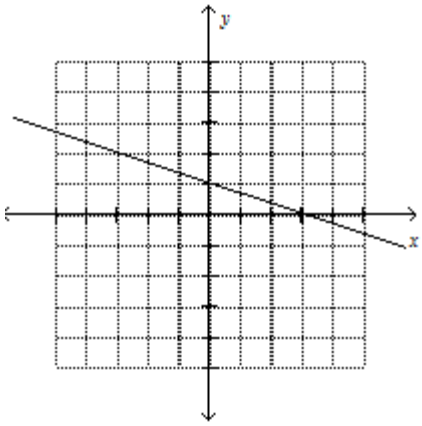
What is the value of f(2)?

8.



What is the value of f(0)?

9.



What is the value of y when x = 3?

Evaluate the following functions at the given value.

10. $f(x) = x^2 - 3x$ at f(4)

11. $f(x) = x^2 - 4x + 2$ at f(-3)

12. $f(x) = 6 - 5x^2$ at f(-4)

13. $f(x) = 3x - 4$ at f(-3)

14. $f(x) = -2x^2 - 5x + 7$ at f(-3)

15. $f(x) = 3x - 7$ at f(x – 2)

16. $f(x) = -4x + 5$ at f(x + 3)

17. $f(x) = -2x - 9$ at f(x – 5)

Simplify each expression.

18) $7(1 - 9b)$

19) $-8(-6 + 7v)$

20) $5(9 + 6r) + 5(1 + 8r)$

21) $-6(1 - 3x) + 6(10x + 3)$

Evaluate each expression.

22) $4 + 12 \div 4$

23) $9 \div 3 \cdot 2$

24) $6 \cdot 2 - 3$

25) $12 \div (2 + 1)$