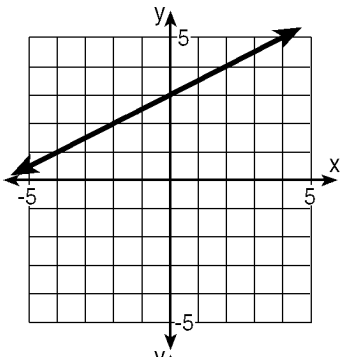
Name: _____

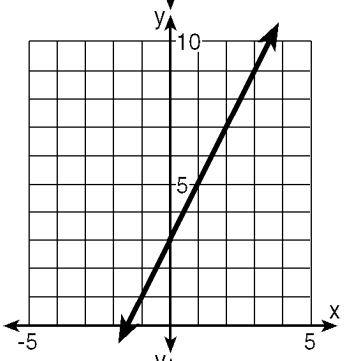
Intercepts, Slope, and Slope-Intercept Form

1) Which of the following is the correct graphic representation of the function $f(x) = \frac{1}{2}x + 3$?

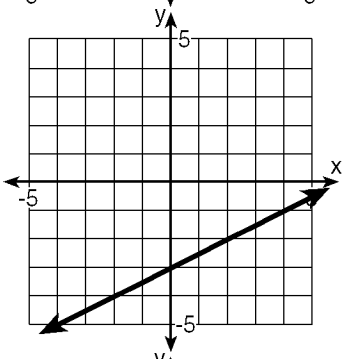
A)



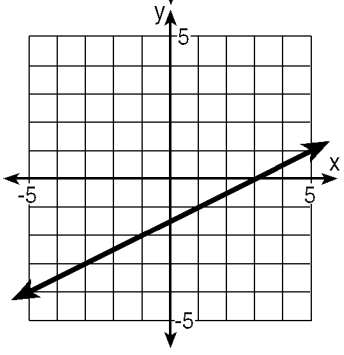
B)



C)

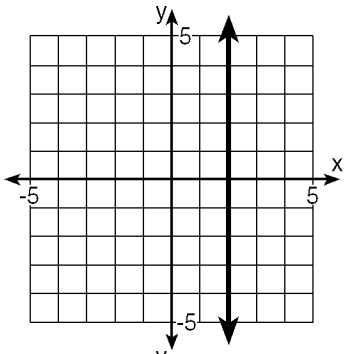


D)

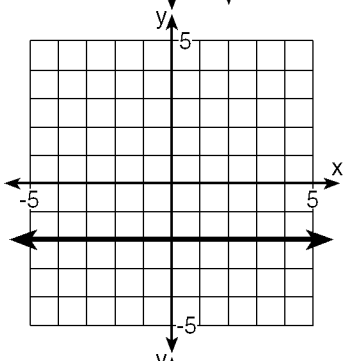


2) Which of the following is the correct graphic representation of the linear function $g(x) = 2$?

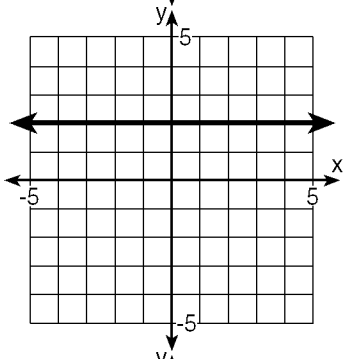
A)



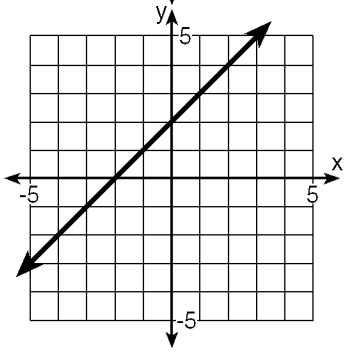
B)



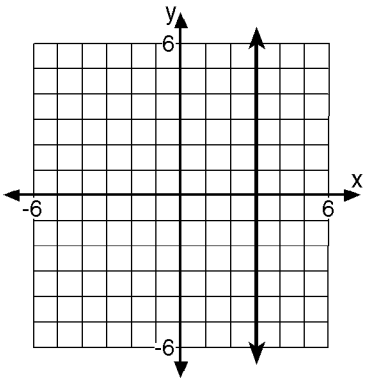
C)



D)

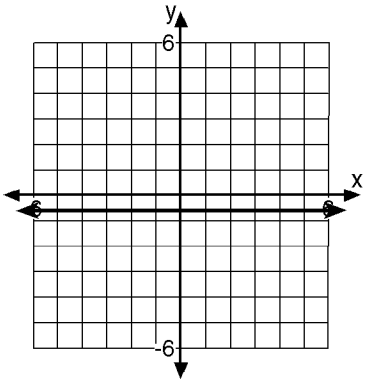


3) Which equation correctly describes the line graphed?



A) $y = -3$
B) $x = 3$
C) $y = 4$
D) $x = -3$

4) What is the equation of the line graphed?



A) $x = -3$
B) $y = -3$
C) $y = -\frac{3}{5}$
D) $x = -\frac{3}{5}$

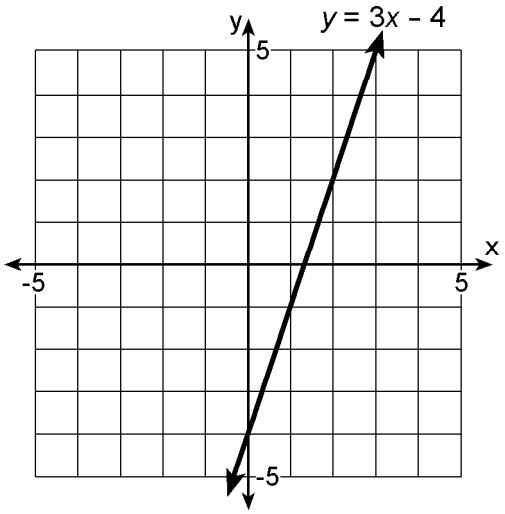
5) What is the slope of the line containing points A(4,-1) and B(0,2)?

A) $-\frac{3}{4}$
B) $\frac{3}{4}$
C) $\frac{4}{3}$
D) $-\frac{4}{3}$

6) If the y-intercept of a line is 4, what could be an equation for this line?

A) $y = \frac{1}{2}x + 4$
B) $y = 4x + 3$
C) $y = 4x$
D) $y = x - 4$

7) Determine the slope of the line graphed below.



A) -4
B) 4
C) -3
D) 3

8) If $f(x) = |x^3 - 3|$, then f(-1) is equal to

A) 0
B) 2
C) -2
D) 4

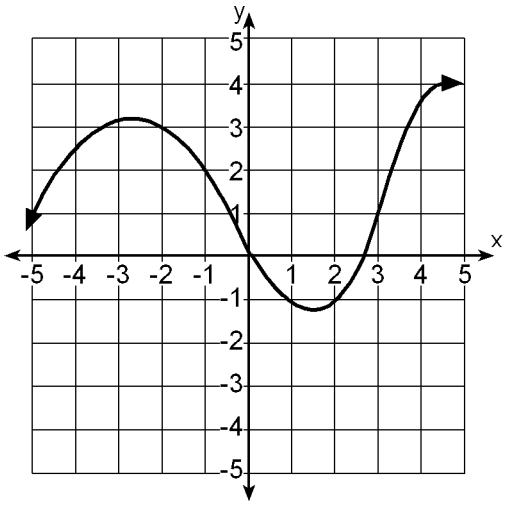
9) If $g(x) = 2x^3 - 3x + 5$, find the value of g(-2).

A) -53
B) -17
C) -5
D) 27

10) If $g(x) = 2x^3 - 3x + 5$, find the value of g(-3).

A) -22
B) -40
C) 32
D) 40

11) Given the graph below of $y = f(x)$.



According to the graph shown, what is the value of f(1)?

A) 1 B) 2 C) -1 D) -2

12) What is the x-intercept of the line $x + 4y = 8$?

A) 4 B) 2 C) 8 D) 5

13) Which of the following lines have the same slope?

I. $y = 3x + 2$
II. $y = 2x + 2$
III. $y = 3x + 4$
IV. $y = \frac{1}{3}x + 4$
V. $y = -\frac{1}{3}x - 2$

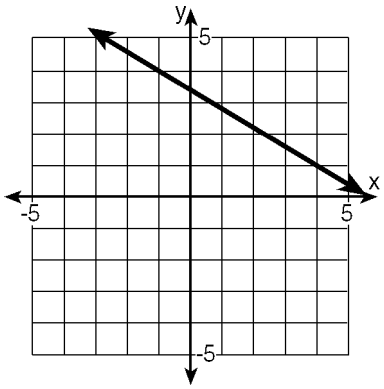
A) *I* and *III* C) *II* and *III*
B) *III* and *IV* D) *IV* and *V*

14) Which equation below describes the line passing through the point (2,6) with a slope of 1?

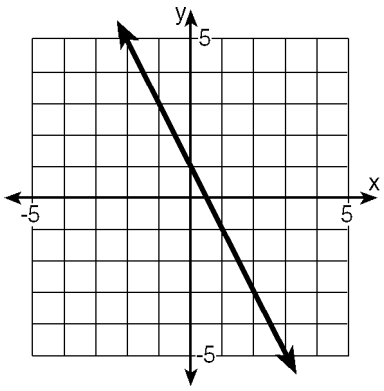
A) $y = x - 4$ C) $y = x + 12$
B) $y = x + 4$ D) $y = x + 8$

15) Given the function $f(x) = 3x - 2$, find the value of f(7).

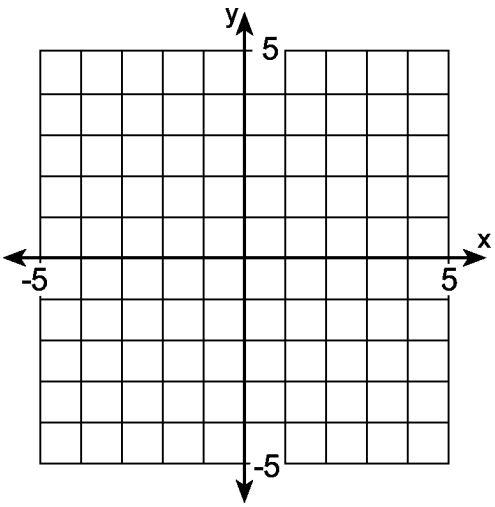
16) Using the graph of the linear function below, find the corresponding input value when the output value is 4.



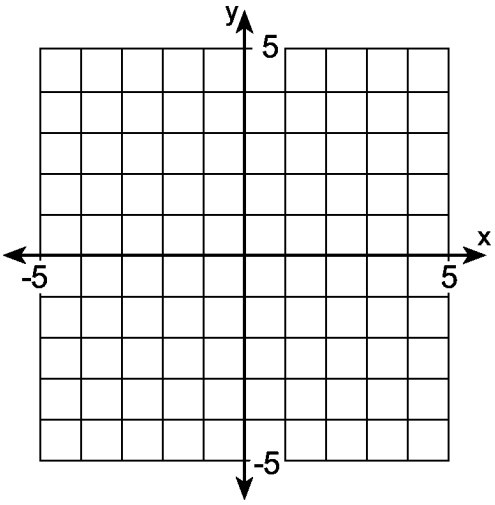
17) Using the graph of the function below, find the corresponding input value for an output value of 3.



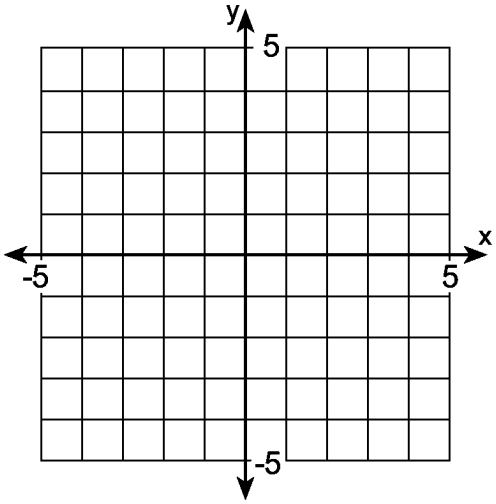
18) Graph: $y = 2x$



19) Graph: $x - y = 2$



20) Graph: $3y - 2x = 6$



21) Find the slope of the line that passes through the points (1,4) and (4,7).

22) Write an equation of a line whose slope is -4 and whose y-intercept is 6.

23) Write an equation of a line whose slope is $-\frac{1}{4}$ and whose y-intercept is -4.

24) Given the function $f(x) = 4x - 1$, find the value of f(0).

25) Given the function $f(x) = 2x + 4$, find the value of f(-1).

1) A 2) C 3) B 4) C 5) A

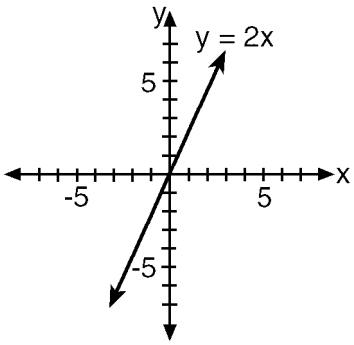
6) A 7) D 8) D 9) C 10) B

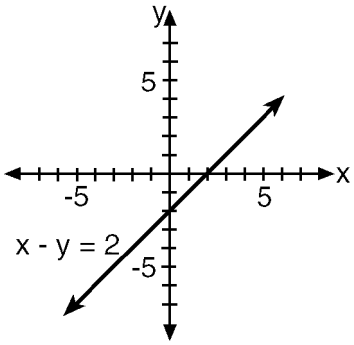
11) A 12) C 13) A 14) B

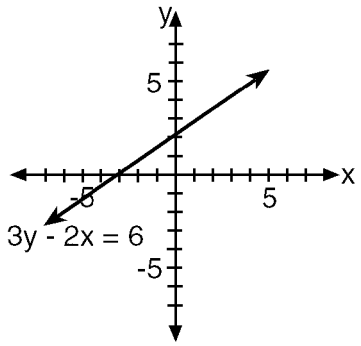
15) 19

16) -1

17) -1

18) 

19) 

20) 

21) 1

22) $y = -4x + 6$

23) $y = -\frac{1}{4}x - 4$

24) -1

25) 2