

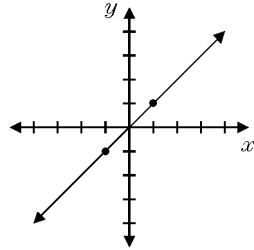
# Linear Functions Test

Name: \_\_\_\_\_

Date: \_\_\_\_\_

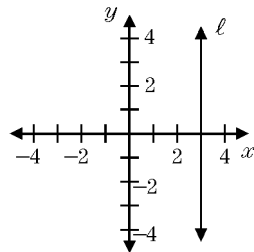
1. What is an equation of the line whose graph is shown?

- A.  $y = -x$
- B.  $y = 2x$
- C.  $y = x$
- D.  $y = 2$



2. In the accompanying diagram, which is an equation of line  $\ell$ ?

- A.  $y = 3$
- B.  $x = 3$
- C.  $x + y = 3$
- D.  $x - y = 3$

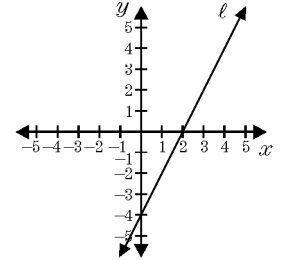


3. Which is the graph of the equation  $y = 2$ ?

- A.
- B.
- C.
- D.

4. Which is an equation for line  $\ell$  in the accompanying diagram?

- A.  $y = 2x + 2$
- B.  $y = 2x - 4$
- C.  $y = -2x - 4$
- D.  $y = -2x + 2$

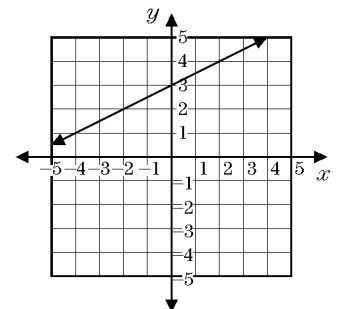


5. Which graph represents the equation  $x = -3$ ?

- A.
- B.
- C.
- D.

6. Which equation represents line  $\ell$ , shown in the accompanying diagram?

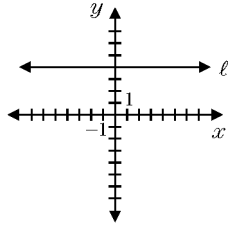
- A.  $y = 2x + 3$
- B.  $y = \frac{1}{2}x + 3$
- C.  $y = 3x + \frac{1}{2}$
- D.  $y = 3x + 2$



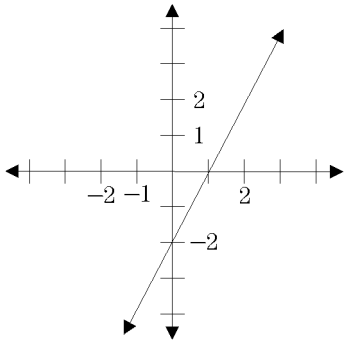
## Linear Functions Test

7. Which equation is represented by this graph of line  $\ell$ ?

- A.  $x = y + 4$
- B.  $y = x + 4$
- C.  $x = 4$
- D.  $y = 4$

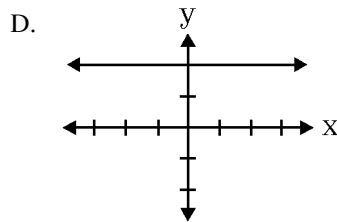
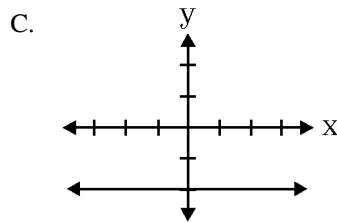
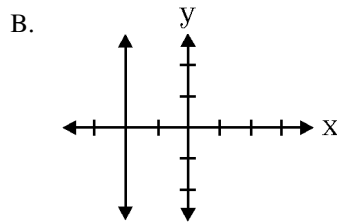
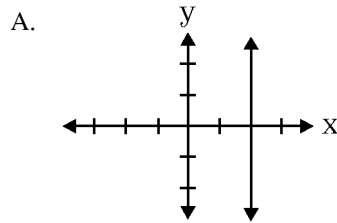


8. What is the equation of the line in the accompanying graph?



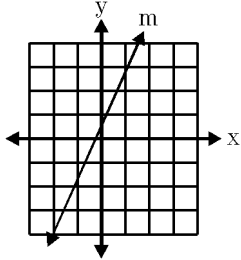
- A.  $2y = x - 2$
- B.  $y = \frac{1}{2}x + 1$
- C.  $y = -2x - 2$
- D.  $y = 2x - 2$

9. Which graph represents the graph of the equation  $x = 2$ ?



### Linear Functions Test

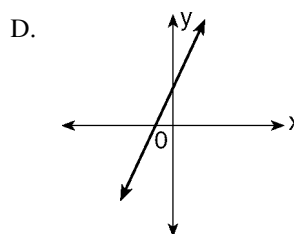
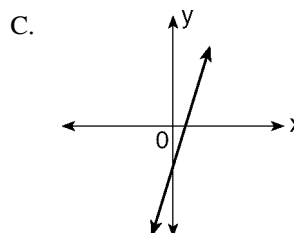
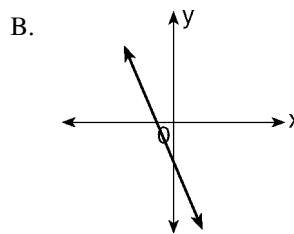
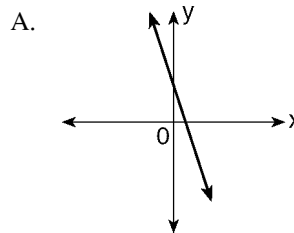
10. The diagram shows the graph of the line  $m$



Which equation represents this line?

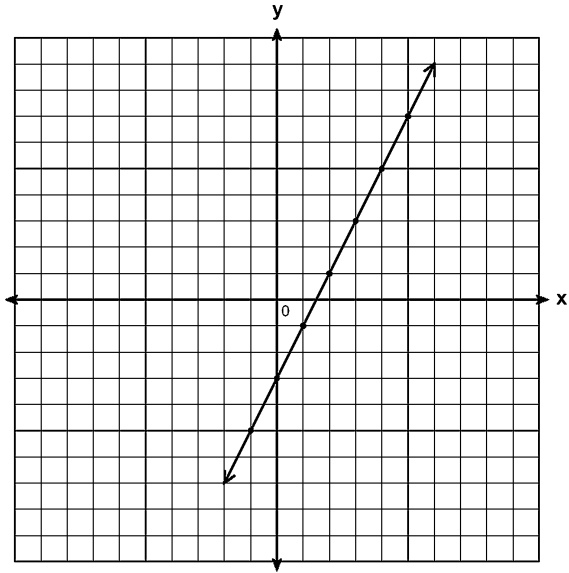
- A.  $y = 2x + 1$                       B.  $y = \frac{1}{2}x + 2$   
C.  $y = -2x + 1$                       D.  $y = -\frac{1}{2}x + 2$

11. Which diagram represents the graph of the equation  $y = 2x - 1$ ?

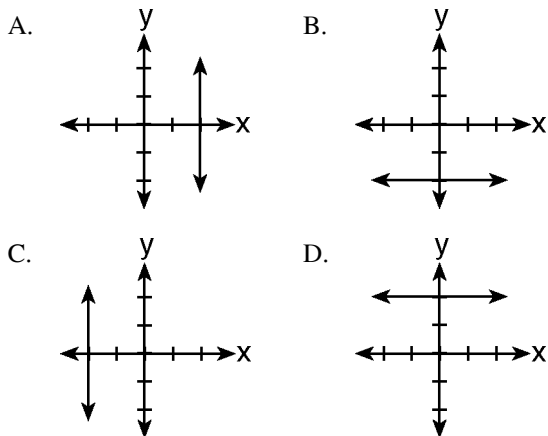


## Linear Functions Test

12. Write the equation for the line shown in the accompanying graph. Explain your answer.



13. Which graph represents the equation  $x = 2$ ?



14. Write an equation of the line that passes through the point  $(0, 3)$  and whose slope is 2.

15. Write an equation of the line whose slope is 2 and whose y-intercept is  $-3$ .

16. An equation whose graph has a slope of  $-2$  and a y-intercept of 3 is

- A.  $x = -2y + 3$       B.  $y = -2x + 3$   
 C.  $x = 3y - 2$       D.  $y = 3x - 2$

17. Which is the equation of a line whose slope is  $-2$  and whose y-intercept is 3?

- A.  $y = -2x + 3$       B.  $y = 3x - 2$   
 C.  $y = 3x + 2$       D.  $y = 2x - 3$

18. Which equation represents a line whose slope is  $\frac{1}{2}$  and whose y-intercept is 3?

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

19. Write an equation of the line whose slope is 2 and whose y-intercept is  $-3$ .

### Linear Functions Test

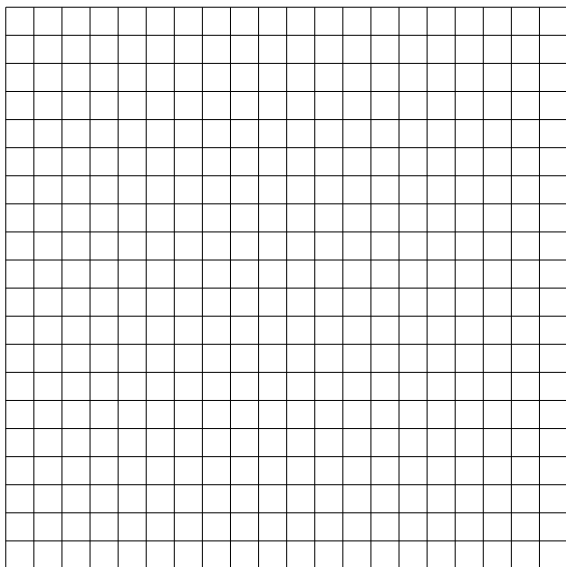
20. Which equation represents the line whose slope is  $\frac{1}{2}$  and whose y-intercept is 5?

- A.  $y = \frac{1}{2}x + 5$                       B.  $y = 5x + \frac{1}{2}$   
C.  $y = \frac{1}{2}x - 5$                       D.  $y = 5x - \frac{1}{2}$

21. Write an equation of the line whose slope is  $-2$  and whose y-intercept is 1.

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

23. On the accompanying grid, draw the graph of the line whose slope is  $\frac{2}{3}$  and whose y-intercept is  $-2$ .



24. Which equation represents the line whose slope is 2 and whose y-intercept is 6?

- A.  $y = 2x + 6$                       B.  $y = 6x + 2$   
C.  $2y + 6x = 0$                       D.  $y + 2x = 6$

25. Which phrase describes the graph of  $y = -1$  on the coordinate plane?

- A. a line parallel to the y-axis and 1 unit to the right of it  
B. a line parallel to the y-axis and 1 unit to the left of it  
C. a line parallel to the x-axis and 1 unit below it  
D. a line parallel to the x-axis and 1 unit above it

26. Which equation is equivalent to  $x + 2y = 6$ ?

- A.  $y = -x + 6$                       B.  $y = -\frac{1}{2}x - 6$   
C.  $y = -x + 3$                       D.  $y = -\frac{1}{2}x + 3$

27. The graph of the equation  $y = 3$  is a line

- A. parallel to the x-axis  
B. parallel to the y-axis  
C. passing through the origin  
D. passing through the point (3, 0)

## Linear Functions Test

28. A line is represented by the equation  $y = 3x - 7$ . Which statement about the line is true?
- A. The slope of the line is  $\frac{1}{3}$ .
  - B. The  $y$ -intercept is  $-7$ .
  - C. Point  $(1, 4)$  lies on the line.
  - D. This line is parallel to the line whose equation is  $y = 2x - 7$ .
29. Which statement is true about the graph of the line whose equation is  $y = 8$ ?
- A. The line is parallel to the  $x$ -axis.
  - B. The line is parallel to the  $y$ -axis.
  - C. The line passes through the origin.
  - D. The line has a slope of 8.
30. The graph of which equation does *not* pass through the origin?
- A.  $y = x$
  - B.  $y = -x$
  - C.  $y = 0$
  - D.  $y = 1$
31. Which is an equation of the line that passes through the points  $(1, 3)$  and  $(-1, 1)$ ?
- A.  $x = 1$
  - B.  $y = 2x + 1$
  - C.  $y = x + 2$
  - D.  $y = 3$
32. Which statement is *false* about the line whose equation is  $y = -2x - 5$ ?
- A. Its slope is  $-2$ .
  - B. It is parallel to the line whose equation is  $y = 2x + 5$ .
  - C. Its  $y$ -intercept is  $-5$ .
  - D. It is perpendicular to the line whose equation is  $y = \frac{1}{2}x - 5$ .
33. The line  $3x - 2y = 12$  has
- A. a slope of  $\frac{3}{2}$  and a  $y$ -intercept of  $-6$
  - B. a slope of  $-\frac{3}{2}$  and a  $y$ -intercept of 6
  - C. a slope of 3 and a  $y$ -intercept of  $-2$
  - D. a slope of  $-3$  and a  $y$ -intercept of  $-6$
34. Which statement describes the graph of  $x = 4$ ?
- A. It passes through the point  $(0, 4)$ .
  - B. It has a slope of 4.
  - C. It is parallel to the  $y$ -axis.
  - D. It is parallel to the  $x$ -axis.

Linear Functions Test    01/20/2013

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| <p>1.<br/>Answer:        C</p> <p>2.<br/>Answer:        B</p> <p>3.<br/>Answer:        B</p> <p>4.<br/>Answer:        B</p> <p>5.<br/>Answer:        B</p> <p>6.<br/>Answer:        B</p> <p>7.<br/>Answer:        D</p> <p>8.<br/>Answer:        D</p> <p>9.<br/>Answer:        A</p> <p>10.<br/>Answer:        A</p> <p>11.<br/>Answer:        C</p> <p>12.<br/>Answer:        <math>y = 2x - 3</math></p> <p>13.<br/>Answer:        A</p> <p>14.<br/>Answer:        <math>y = 2x + 3</math></p> <p>15.<br/>Answer:        <math>y = 2x - 3</math></p> <p>16.<br/>Answer:        B</p> <p>17.<br/>Answer:        A</p> <p>18.<br/>Answer:        D</p> <p>19.<br/>Answer:        <math>y = 2x - 3</math></p> | <p>20.<br/>Answer:        A</p> <p>21.<br/>Answer:        <math>y = -2x + 1</math></p> <p>22.<br/>Answer:        B</p> <p>23.<br/>Answer:        graph is drawn that passes through the points <math>(0, -2)</math> and <math>(3, 0)</math></p> <p>24.<br/>Answer:        A</p> <p>25.<br/>Answer:        C</p> <p>26.<br/>Answer:        D</p> <p>27.<br/>Answer:        A</p> <p>28.<br/>Answer:        B</p> <p>29.<br/>Answer:        A</p> <p>30.<br/>Answer:        D</p> <p>31.<br/>Answer:        C</p> <p>32.<br/>Answer:        B</p> <p>33.<br/>Answer:        A</p> <p>34.<br/>Answer:        C</p> |
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