

TEST NAME: **EE.6 Schoolnet NEW**
TEST ID: **1265328**
GRADE: **08 - Eighth Grade**
SUBJECT: **Mathematics**
TEST CATEGORY: **School Assessment**

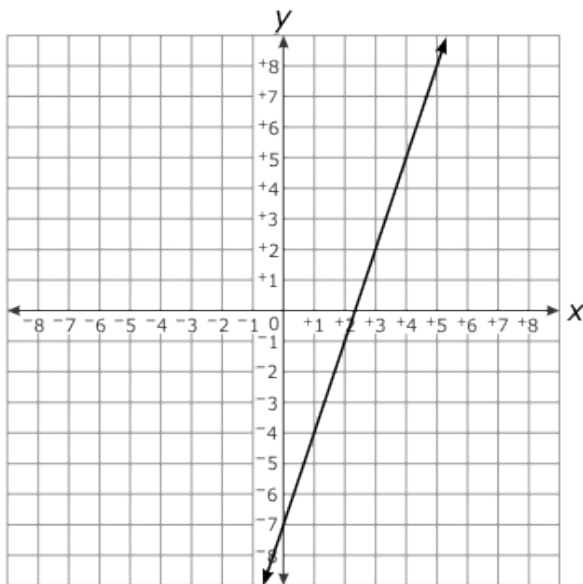
Student: _____

Class: _____

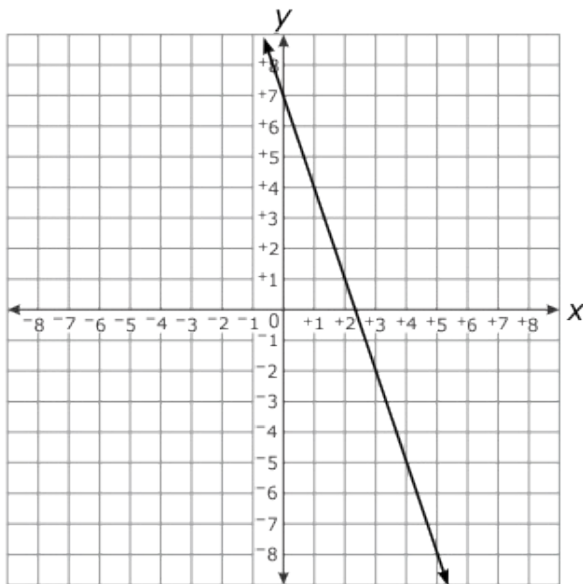
Date: _____

1. Which is the graph of $y = 3x - 7$?

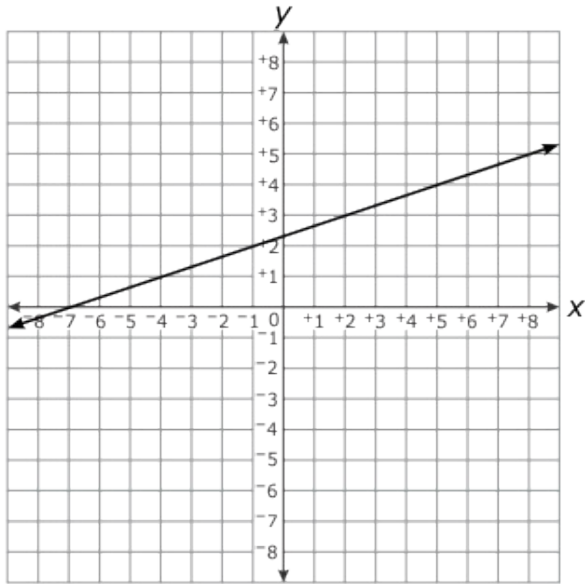
A.



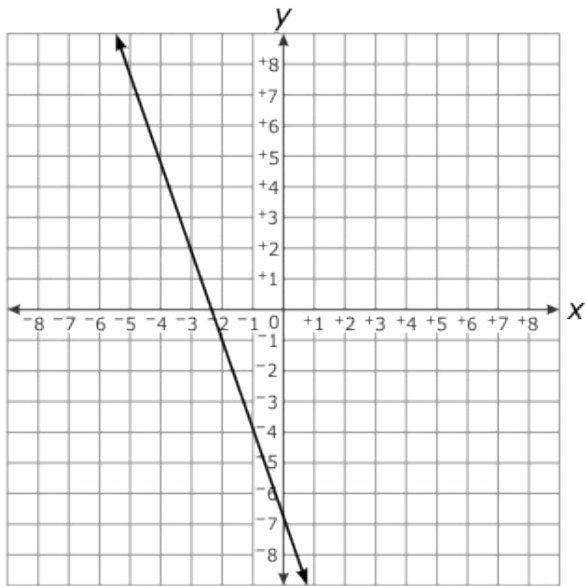
B.



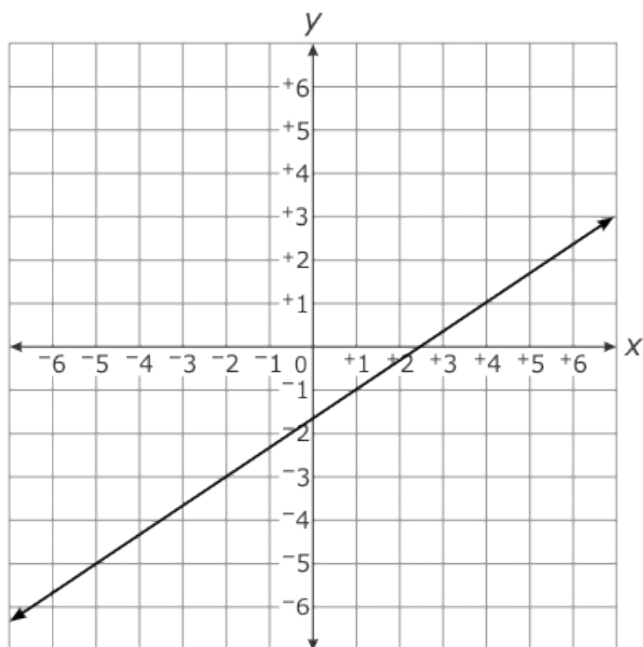
C.



D.



2. Which equation represents the line graphed below?



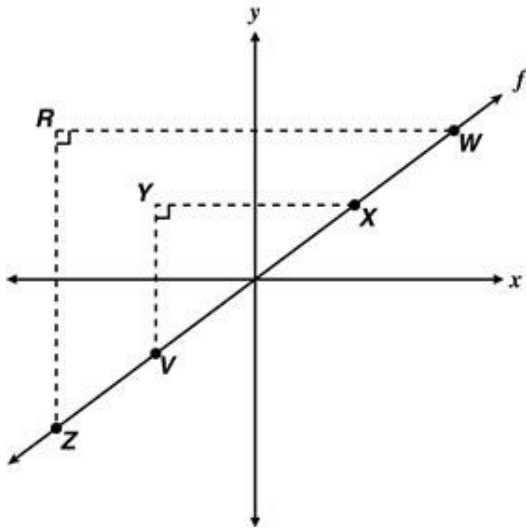
A. $y = \frac{2}{3}x - \frac{5}{3}$

B. $y = \frac{2}{3}x - \frac{1}{3}$

C. $y = \frac{3}{2}x - \frac{5}{2}$

D. $y = \frac{3}{2}x - \frac{1}{2}$

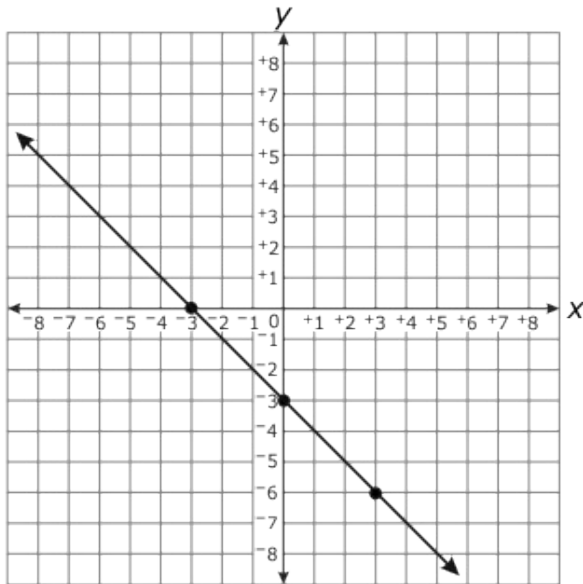
3. Points W, X, V, Z are collinear on line f in the coordinate plane. Triangle XVY and Triangle WZR are similar.



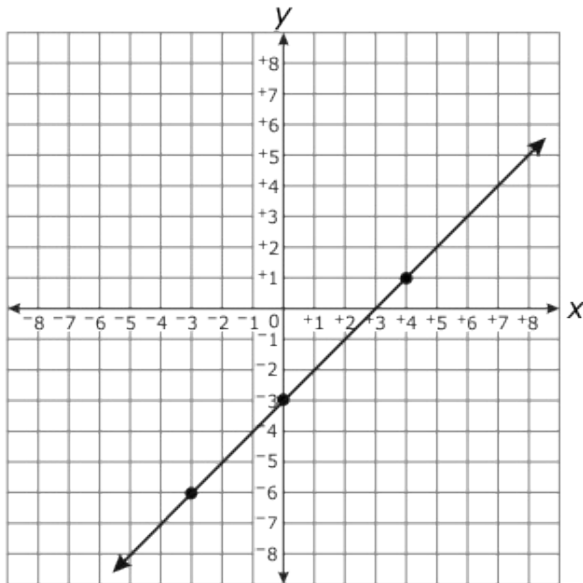
Which proportion indicates that the slope of line f is the same between any two distinct points?

- A. $\frac{VY}{YX} = \frac{ZR}{RW}$
- B. $\frac{ZR}{YX} = \frac{VY}{RW}$
- C. $\frac{XY}{VY} = \frac{WR}{ZR}$
- D. $\frac{WR}{VY} = \frac{XY}{ZR}$
4. The hypotenuse of two similar right triangles is formed by the same line. Which statement is **true** of the slope of this line?
- A. It is the simplified ratio of horizontal : vertical side lengths of each triangle.
- B. It is the simplified ratio of vertical : horizontal side lengths of each triangle.
- C. Its absolute value is the simplified ratio of horizontal : vertical side lengths of each triangle.
- D. Its absolute value is the simplified ratio of the vertical : horizontal side lengths of each triangle.
5. Which shows the graph of the equation $y = -x - 3$?

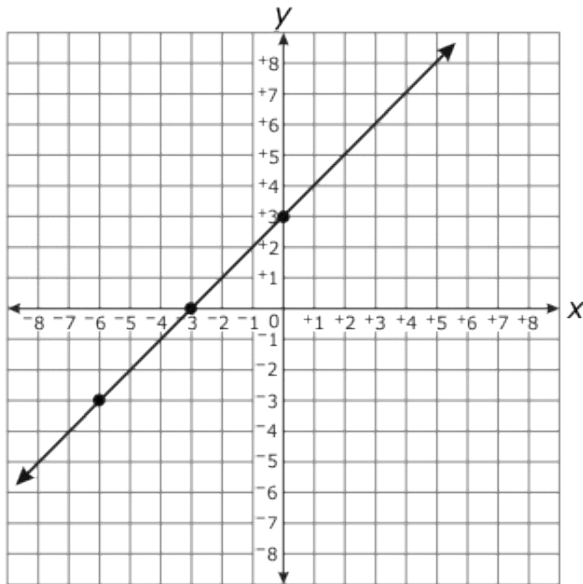
A.



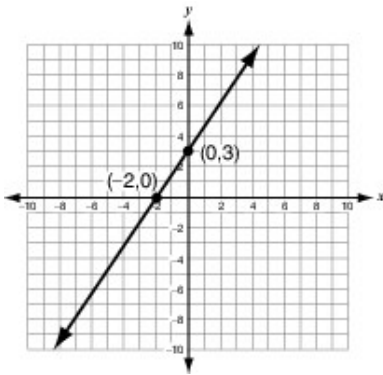
B.



C.

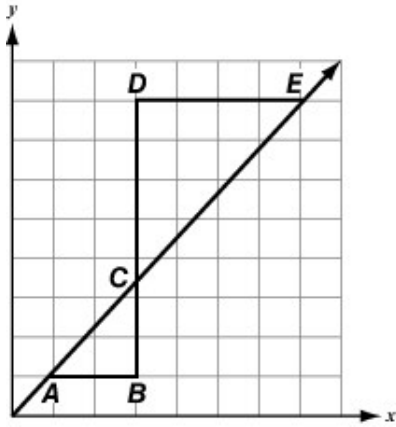


6. What is the equation of the line shown on the coordinate plane below?



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

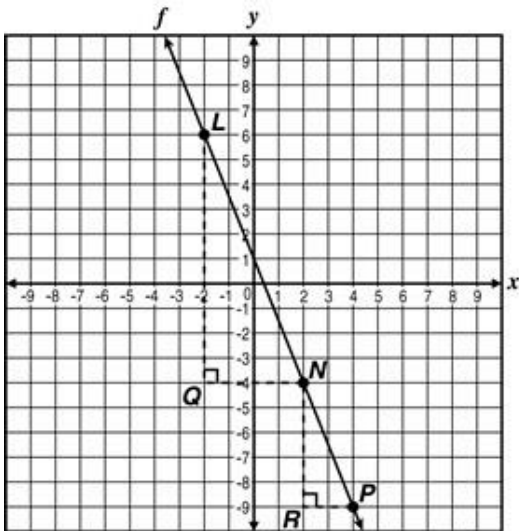
7. Two similar triangles $\triangle ABC$ and $\triangle EDC$ are shown on the grid.



Which of these proportions has ratios that are equal to the slope of \overline{AE} ?

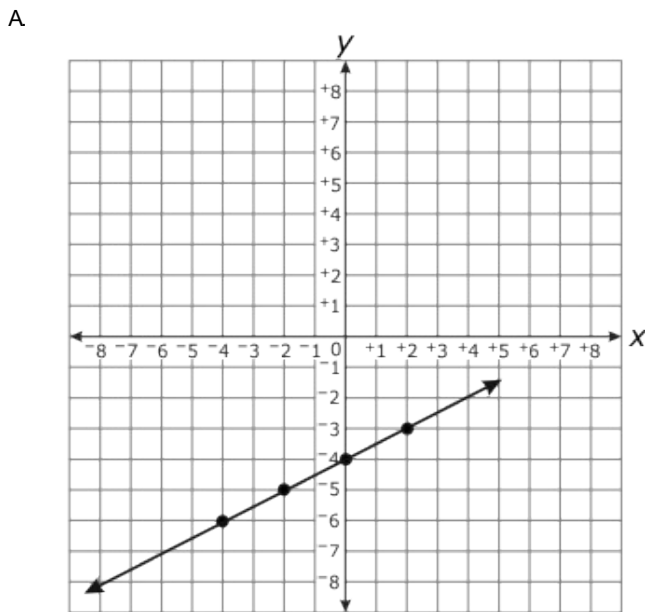
- A. $\frac{AB}{CD} = \frac{DE}{BC}$
- B. $\frac{AB}{DE} = \frac{BC}{CD}$
- C. $\frac{BC}{AB} = \frac{CD}{DE}$
- D. $\frac{BC}{AC} = \frac{CD}{CE}$

8. Points L, N, P are collinear on line f in the coordinate plane. Triangle LNQ and Triangle NPR are similar.

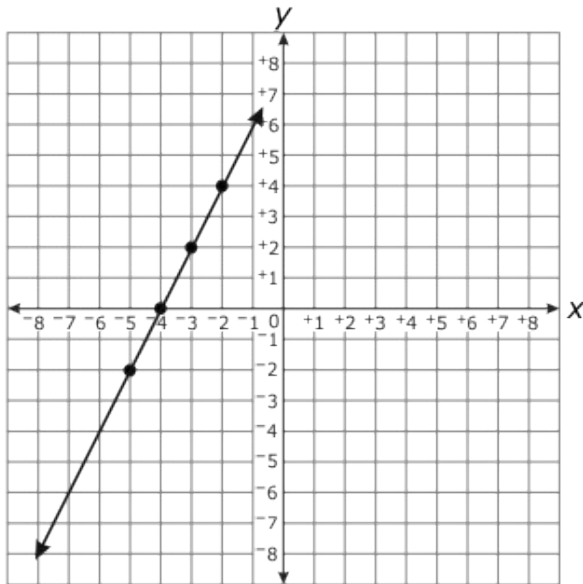


Which ratio equivalent to $\frac{LQ}{NQ}$ demonstrates that the slope of line f is the same between any two distinct points?

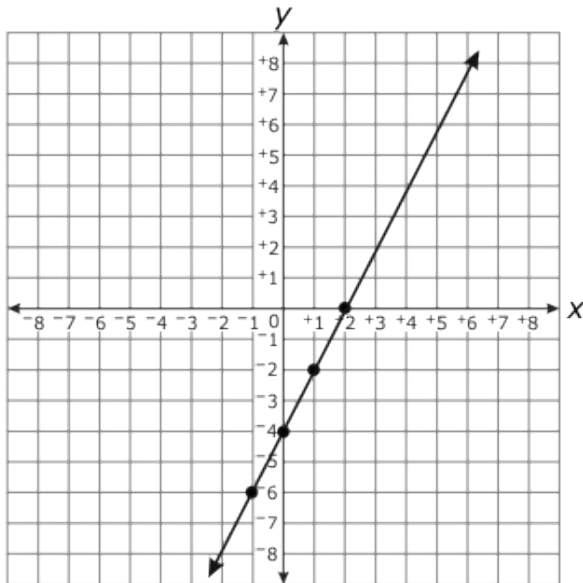
- A. $\frac{QN}{RP}$
 - B. $\frac{NR}{PR}$
 - C. $\frac{LN}{PN}$
 - D. $\frac{PR}{NR}$
9. Which shows the graph of the equation $y = 2x - 4$?



B.



C.

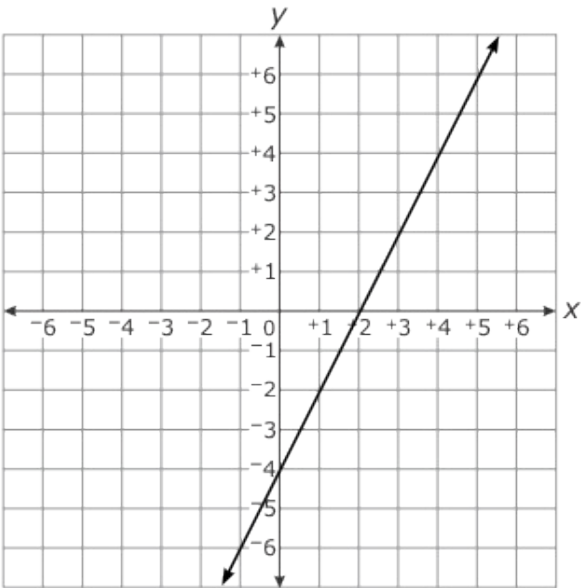


10. What is the equation of the line with a y-intercept of -10 and a slope of 3 ?

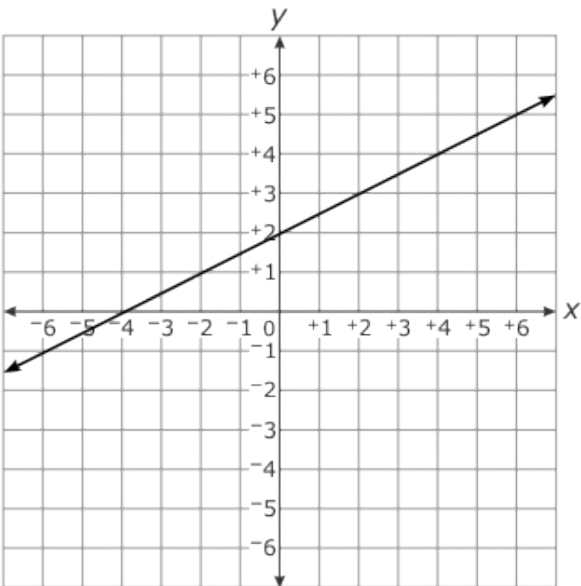
- A. $y = -10x - 3$
- B. $y = -10x + 3$
- C. $y = 3x - 10$
- D. $y = 3x + 10$

11. Which choice shows the graph of $y = \frac{1}{2}x + 2$?

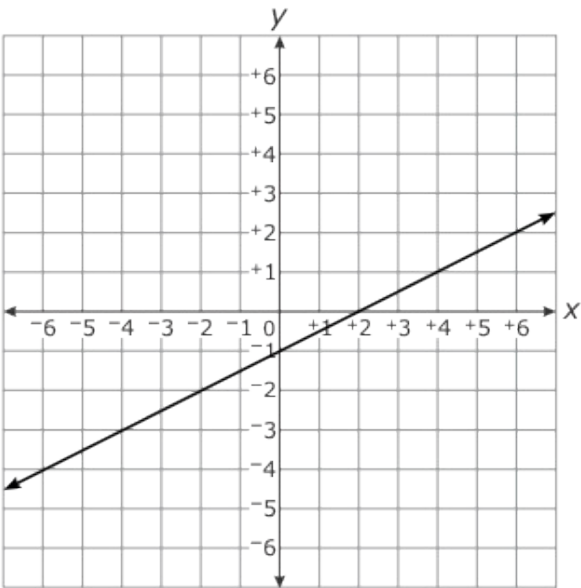
A.



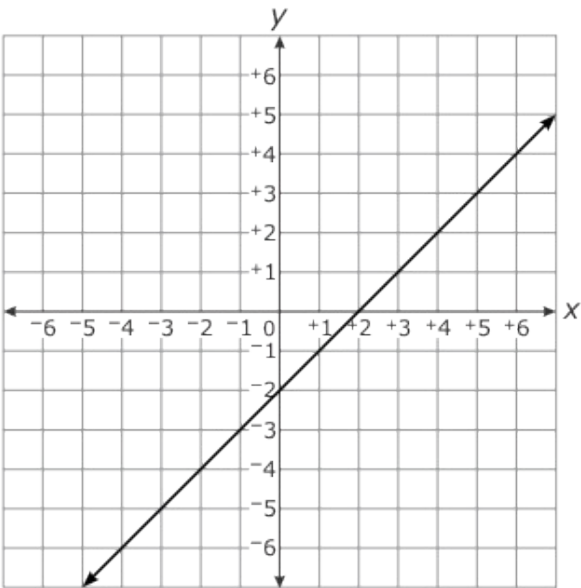
B.



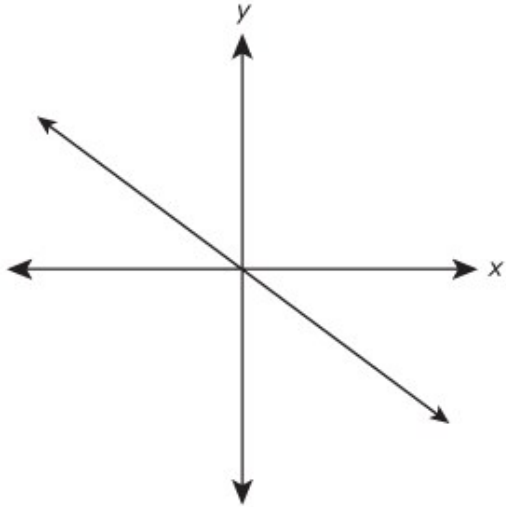
C.



D.



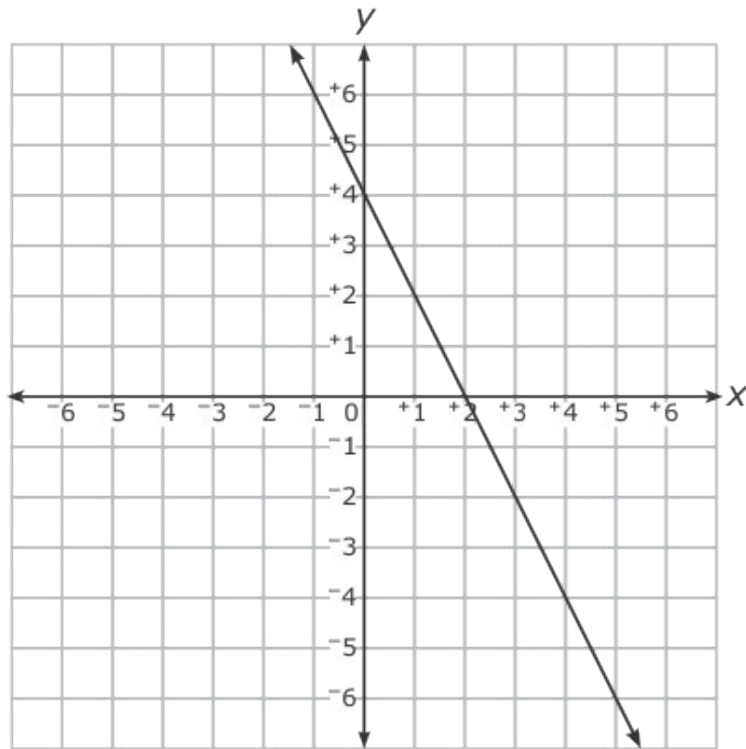
12. The graph shows the line $y = mx$.



If the y -intercept changes to $(0, 10)$, what is the equation of the new line?

- A. $y = 10mx$
- B. $y + 10 = mx$
- C. $y - 10 = mx$
- D. $y = (m + 10)x$

13. Which is an equation of the line graphed below?

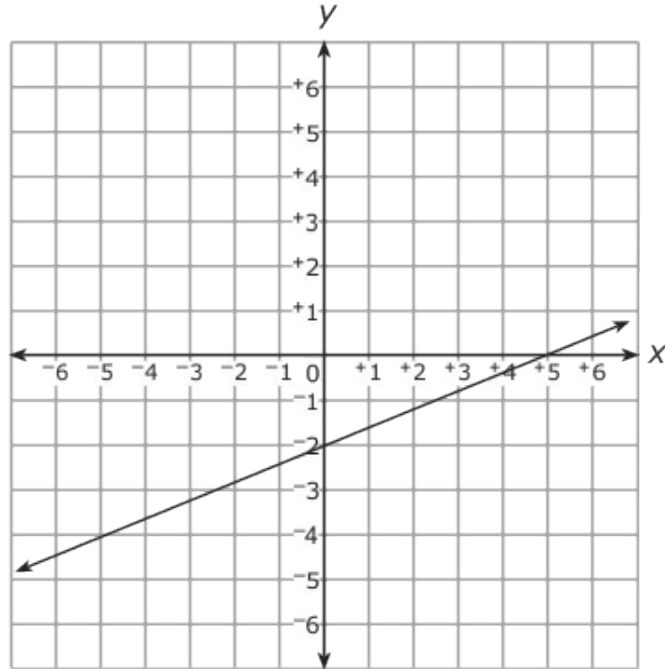


- A. $y = -4x + 2$
- B. $y = -2x + 4$
- C. $y = 2x + 4$
- D. $y = 4x + 2$

14. What is the equation of a line with a y-intercept of -5 and a slope of 8?

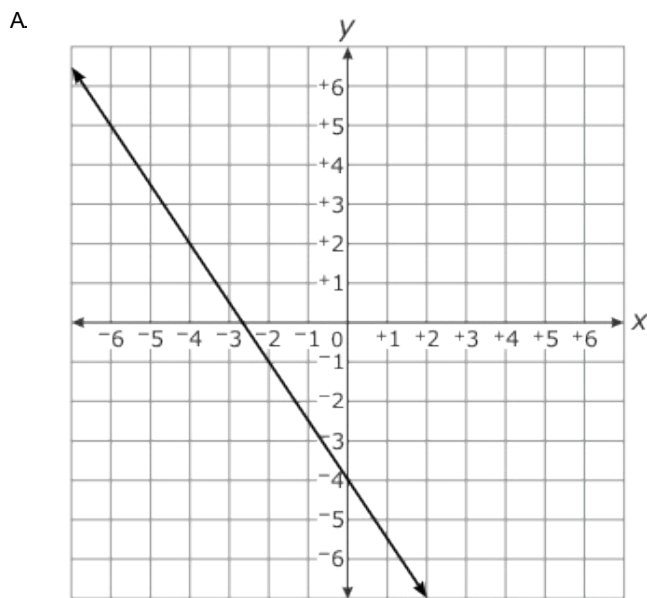
- A. $y = 8x + 5$
- B. $y = 8x - 5$
- C. $y = -5x + 8$
- D. $y = -5x - 8$

15. Which is an equation of the line graphed below?

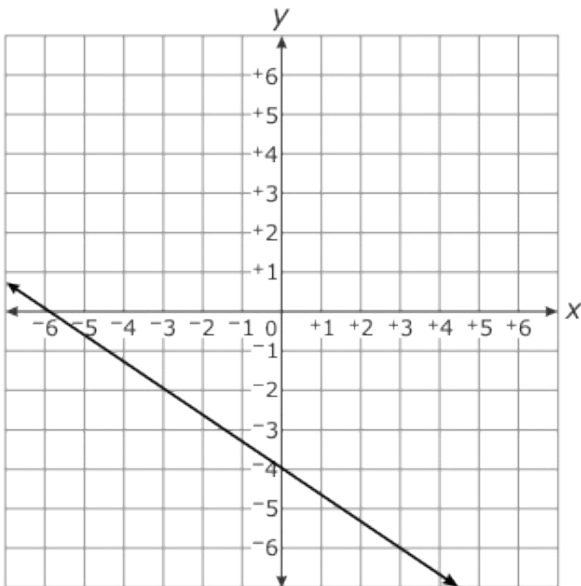


- A. $y = 2.5x + 5$
- B. $y = 2.5x - 2$
- C. $y = 0.4x + 5$
- D. $y = 0.4x - 2$

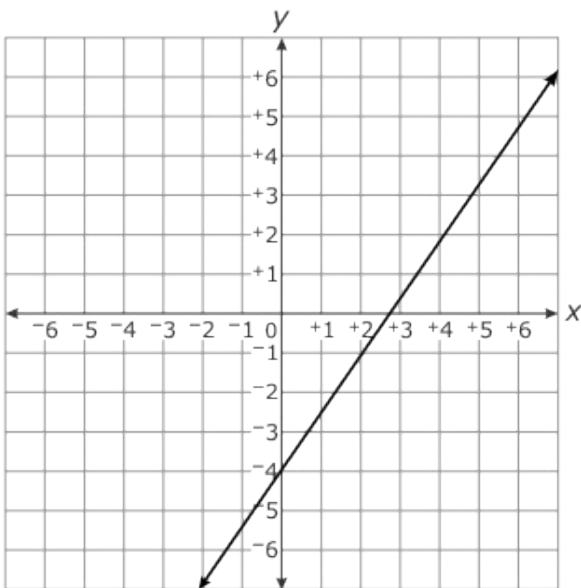
16. Which graph shows the line of the equation $y = -1.5x - 4$?



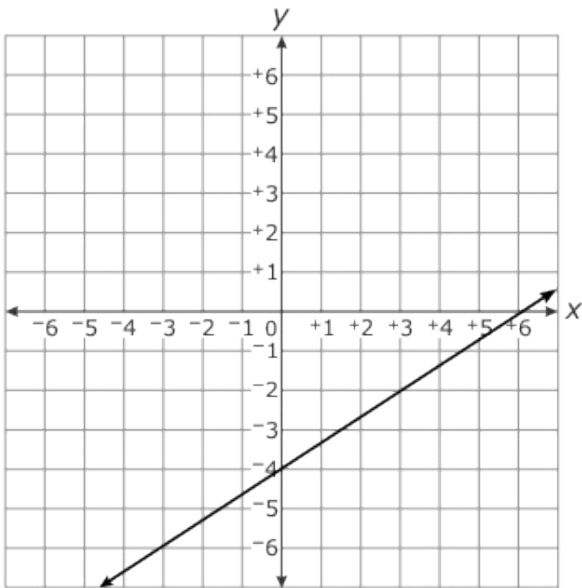
B.



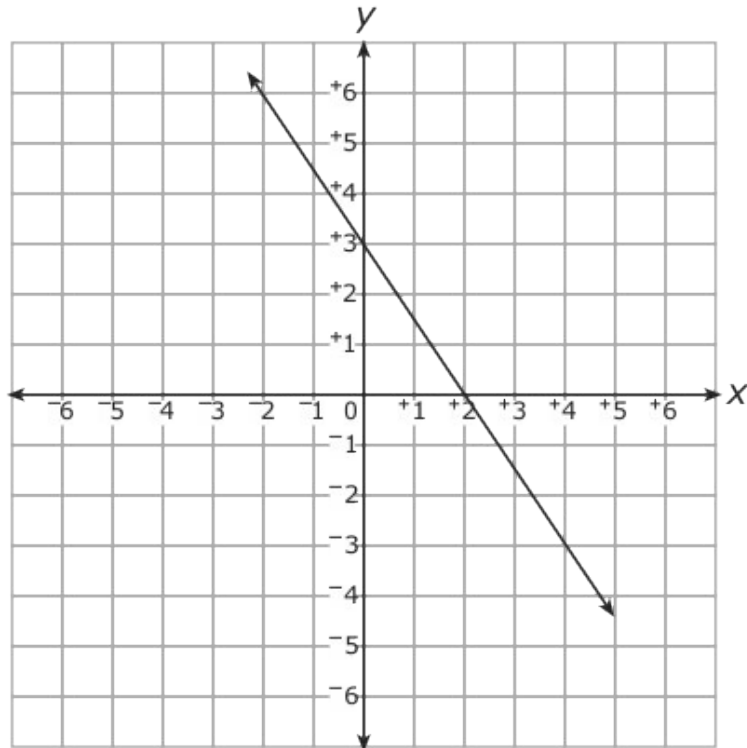
C.



D.

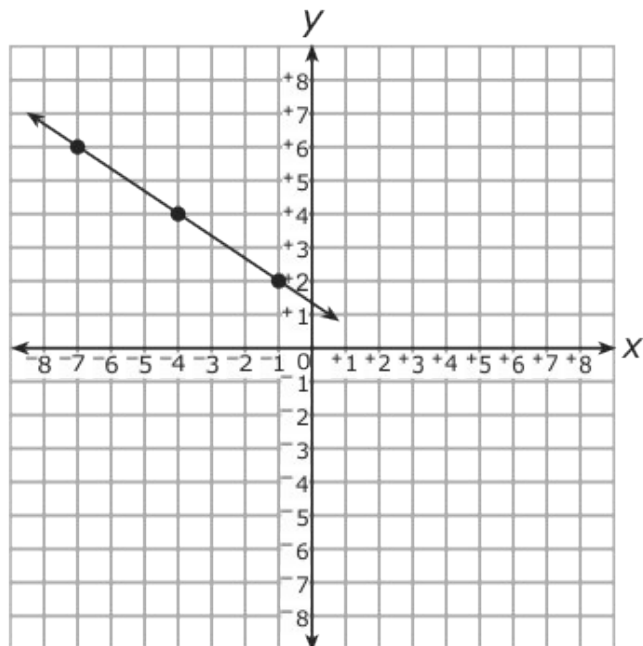


17. Which is an equation of the line graphed below?



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

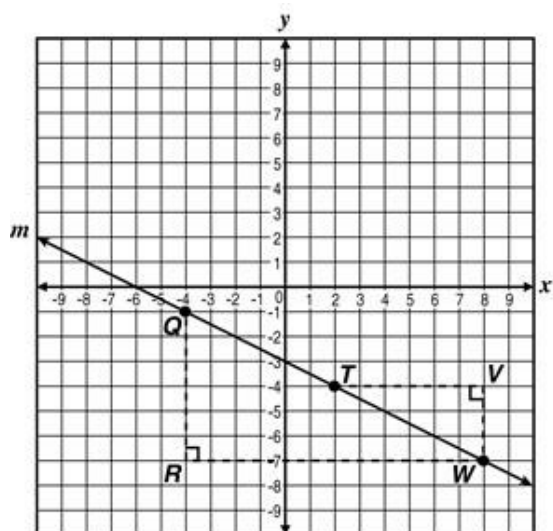
18. A line is graphed below.



What are the coordinates of another point the line passes through?

- A. $(-9, 8)$
- B. $(1, 0)$
- C. $(6, -2)$
- D. $(8, -4)$

19. Line m , $\triangle QWR$, and $\triangle TWV$ are shown on the coordinate grid below.

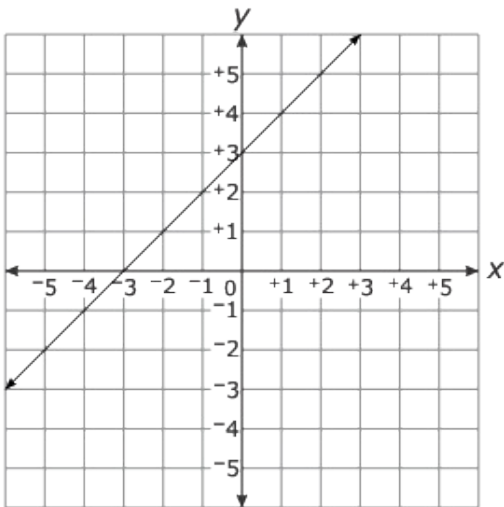


Which statement is true?

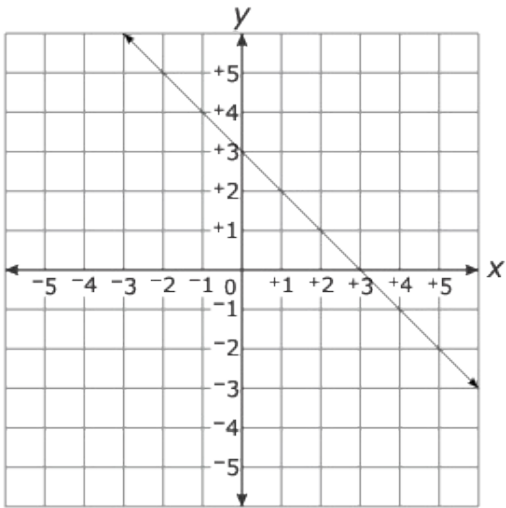
- A. Triangle QWR is similar to Triangle TWV .
- B. Triangle QWR is congruent to Triangle TWV .
- C. The slope of line m can be found using the proportion $\frac{WR}{QR} = \frac{TV}{WV}$.
- D. The slope of line m can be found using the proportion $\frac{QR}{WR} = \frac{WV}{TV}$.

20. Which is the graph of the equation $y = x + 3$?

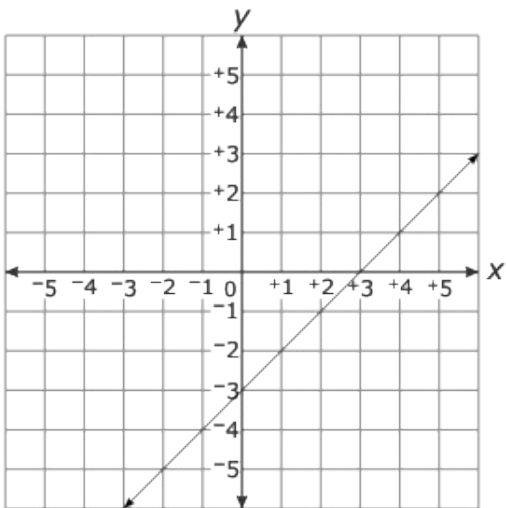
A.



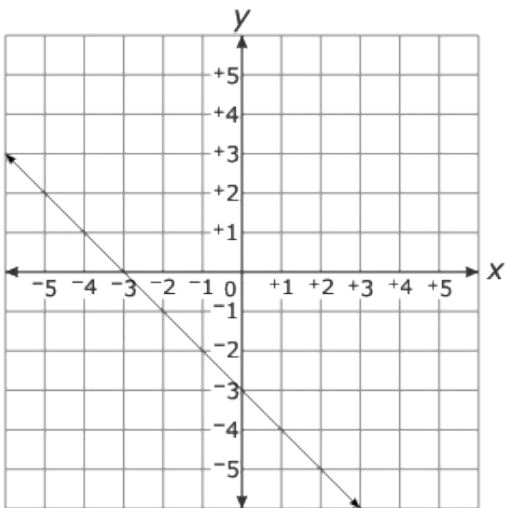
B.



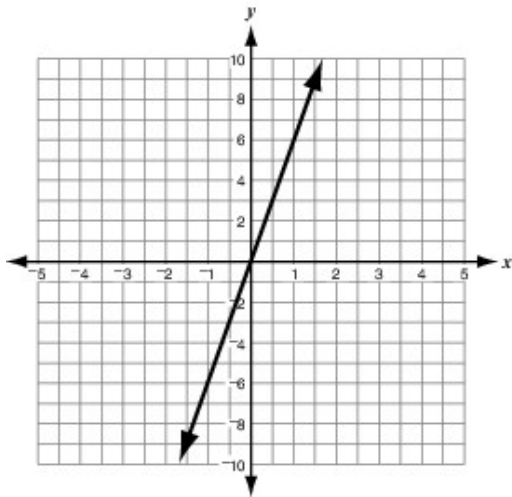
C.



D.

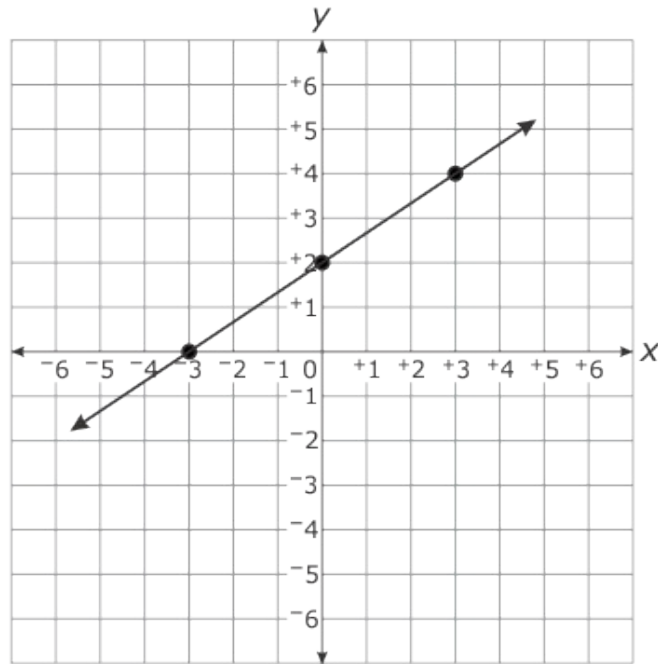


21. What is the equation of the line shown in the coordinate plane below?



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

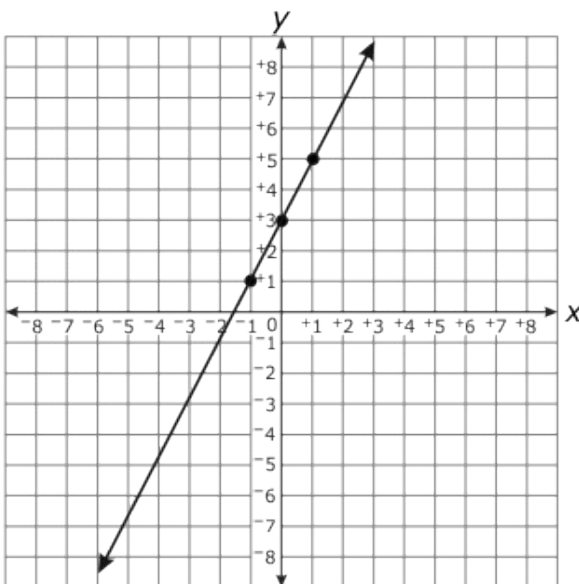
22. Which is an equation of the line graphed below?



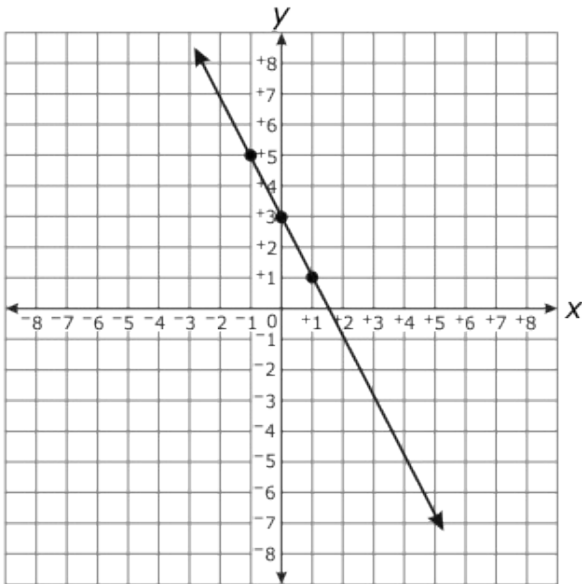
- A. $y = \frac{2}{3}x - 3$
- B. $y = \frac{2}{3}x + 2$
- C. $y = \frac{3}{2}x + 2$

23. Which shows the graph of the equation $y = -2x + 3$?

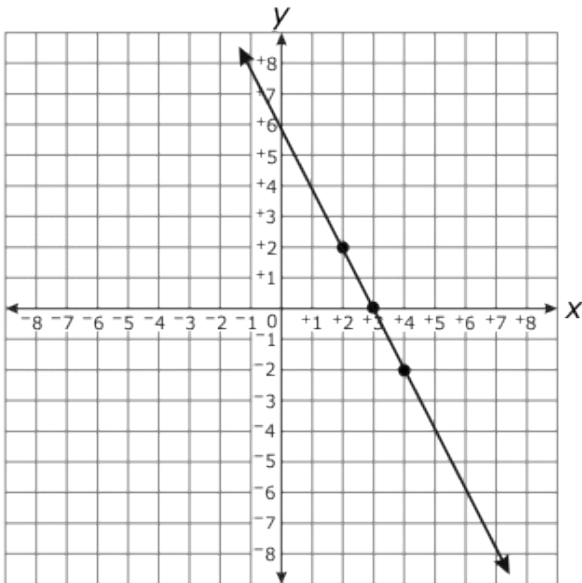
A.



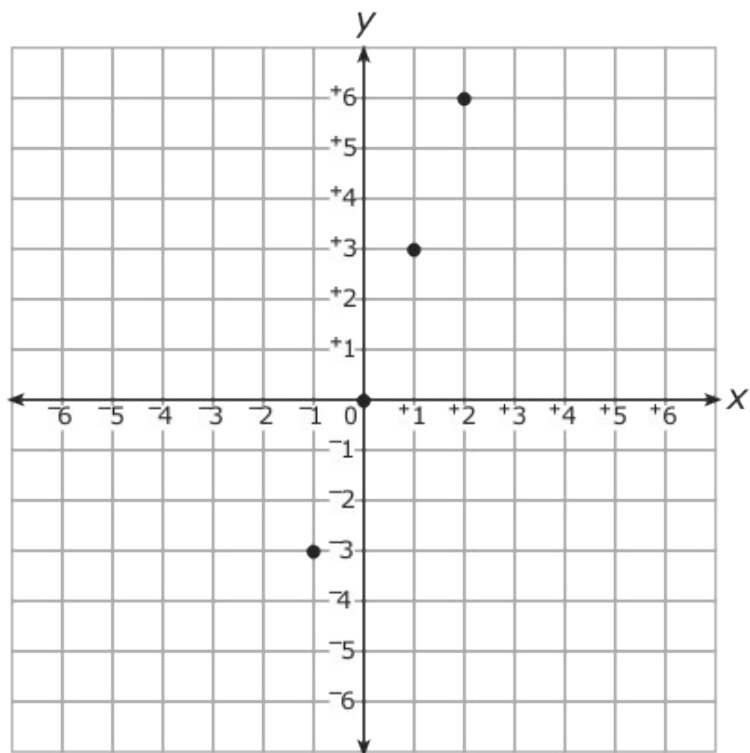
B.



C.

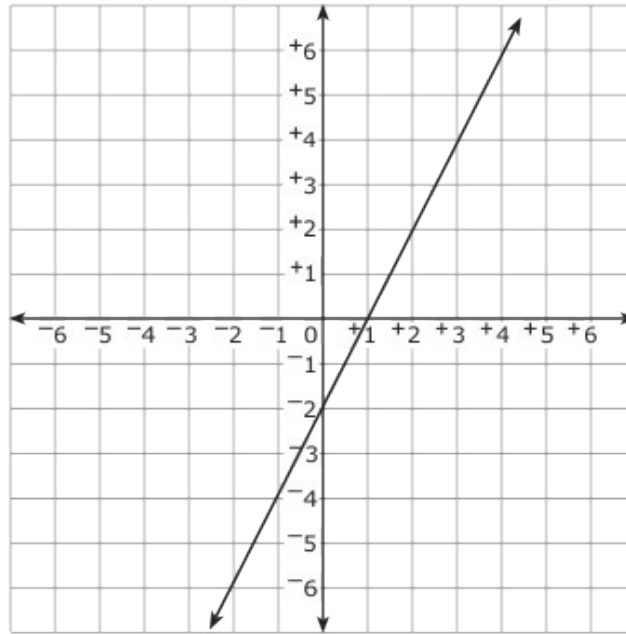


24. What is the equation of a line that goes through the points on the graph below?



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

25. Which is the equation of the line on the graph below?

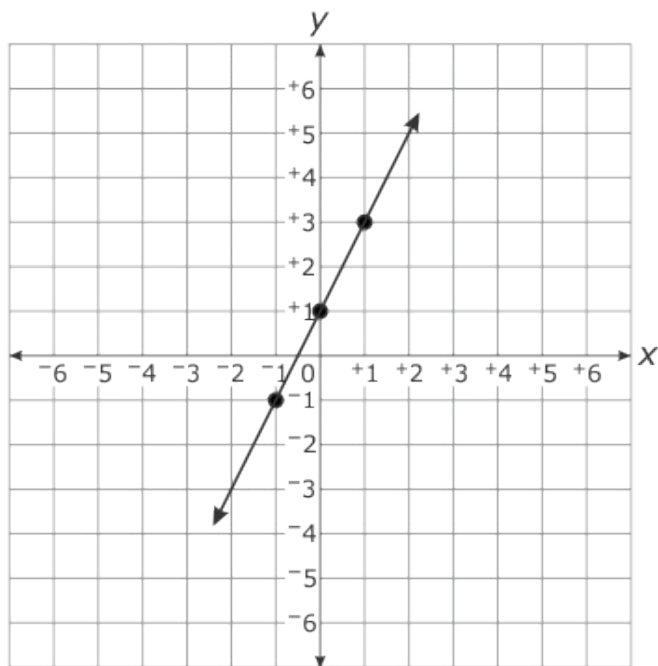


- A. $y = 2x + 1$
- B. $y = 2x - 2$
- C. $y = x + 1$
- D. $y = x - 2$

26. Which equation represents a line having slope $\frac{5}{2}$ and y-intercept $(0, -4)$?

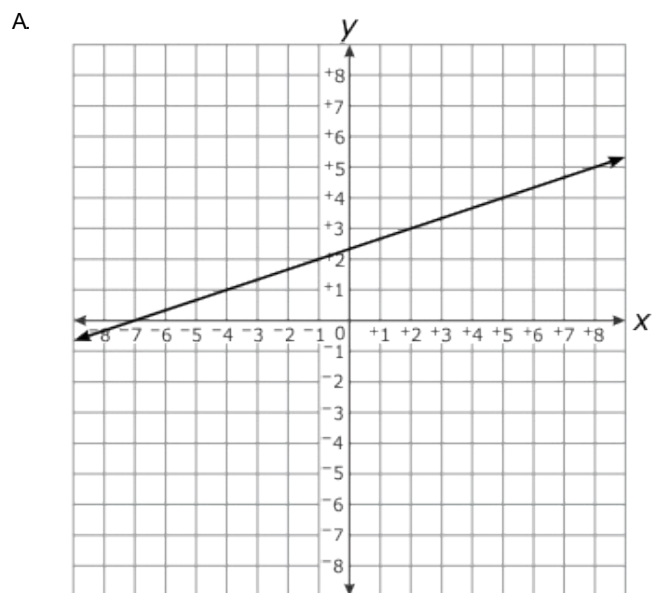
- A. $y = -4x + \frac{5}{2}$
- B. $y = 4x - \frac{5}{2}$
- C. $y = \frac{5}{2}x - 4$
- D. $y = -\frac{5}{2}x + 4$

27. Which is an equation of the line graphed below?

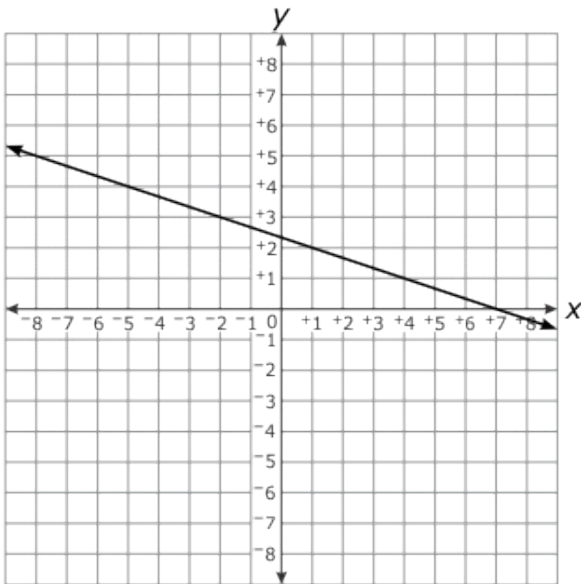


- A. $y = -2x + 1$
- B. $y = \frac{1}{2}x + 1$
- C. $y = 2x + 1$

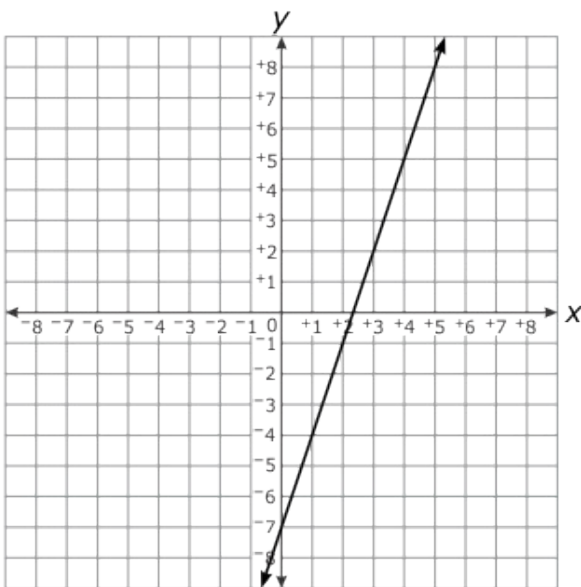
28. Which is the graph of $y = 3x - 7$?



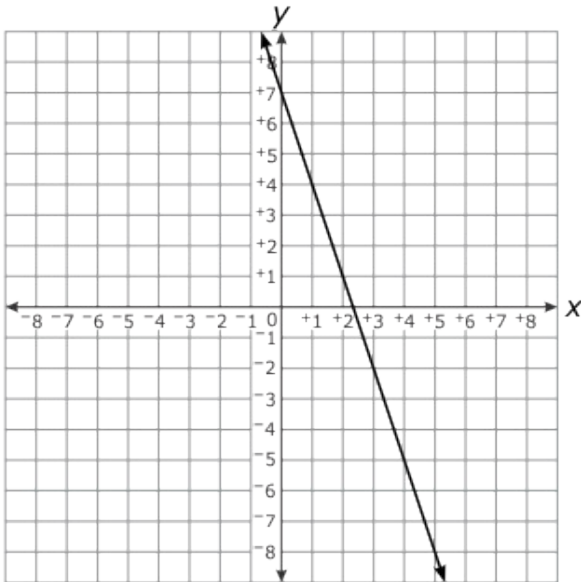
B.



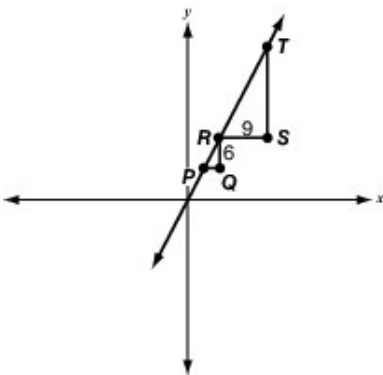
C.



D.



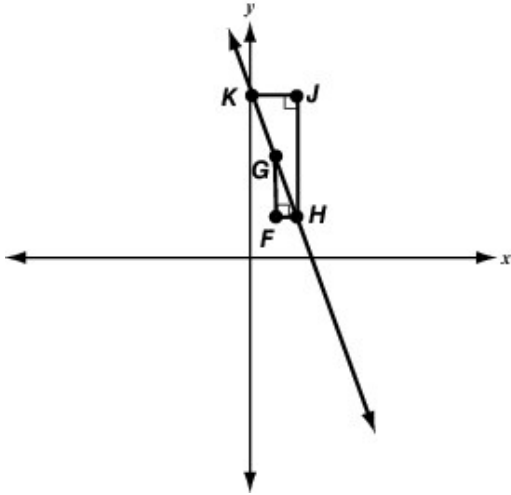
29. On the coordinate plane below, triangle PQR is similar to triangle RST . The corresponding side lengths of triangle RST and triangle PQR are in the ratio of 3:1.



What is the equation of the line containing the points P and T ?

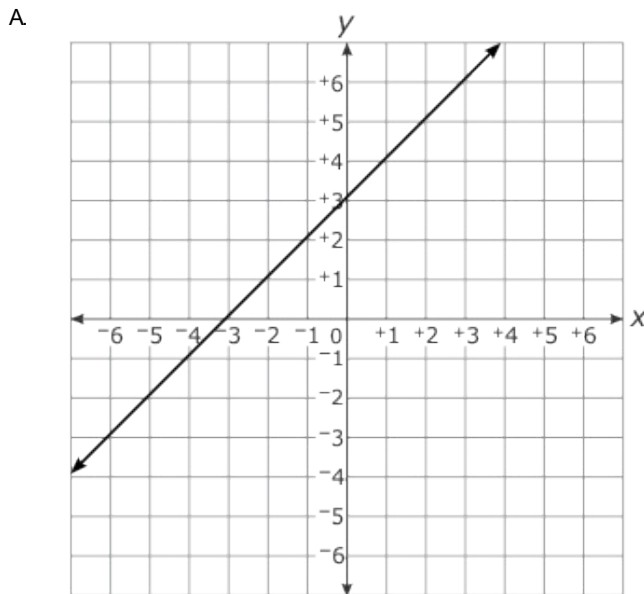
- A. $y = \frac{2}{3}x$
- B. $y = \frac{3}{2}x$
- C. $y = 2x$
- D. $y = 3x$

30. Which of these statements is **true** of triangles FGH and HJK in the graph below?

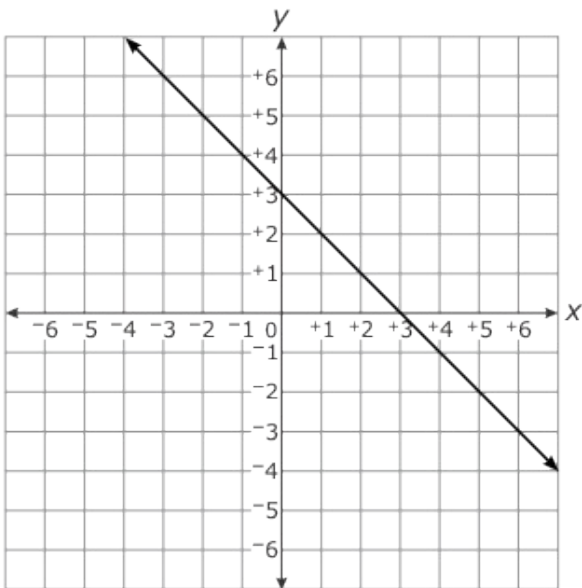


- A. The absolute value of the slope of the line is equal to $\frac{HJ}{FG}$.
- B. The absolute value of the slope of the line is equal to $\frac{FG}{JK}$.
- C. Because triangles FGH and HJK are similar, the slope is the same between any two distinct points on the line.
- D. Because triangles FGH and HJK are not similar, the slope is found by using two distinct points on one of the triangles.

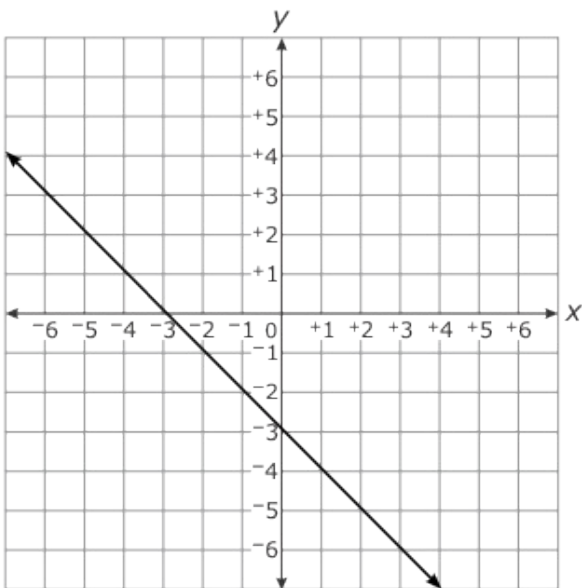
31. Which is the graph of $y = -x + 3$?



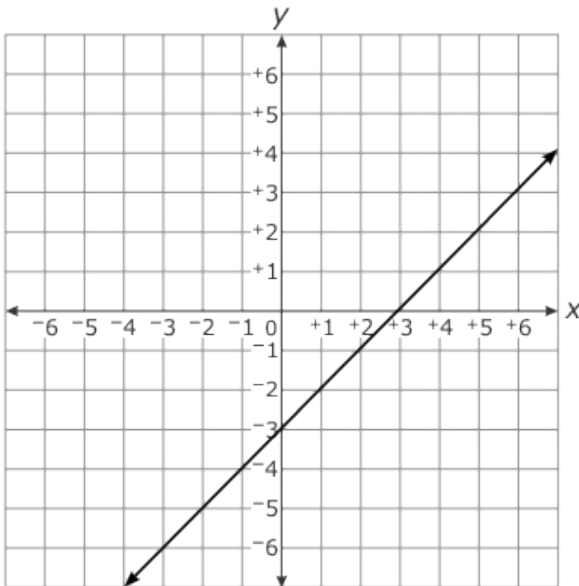
B.



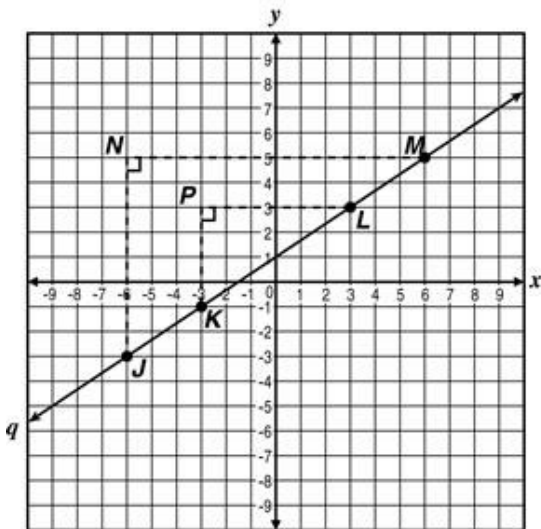
C.



D.



32. Triangle JNM and Triangle LPK are shown below.

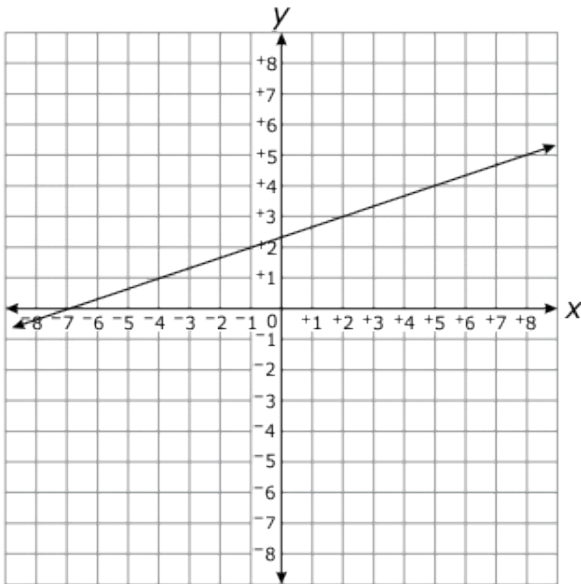


Which statement is true?

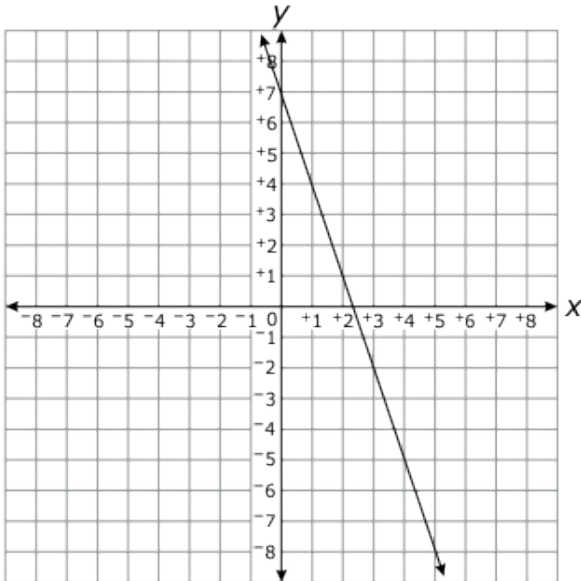
- A. Triangle JNM is similar to Triangle LPK .
- B. Triangle JMN is congruent to Triangle KLP .
- C. The slope of line q can be found using the proportion $\frac{MN}{JN} = \frac{LP}{KP}$.
- D. The slope of line q can be found using the proportion $\frac{JN}{MN} = \frac{KP}{LP}$.

33. Which graph shows a line with a slope of -3 and a y -intercept of -7 ?

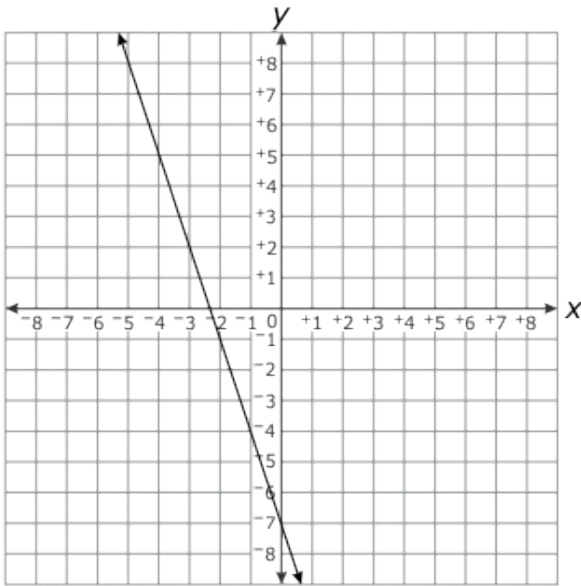
A.



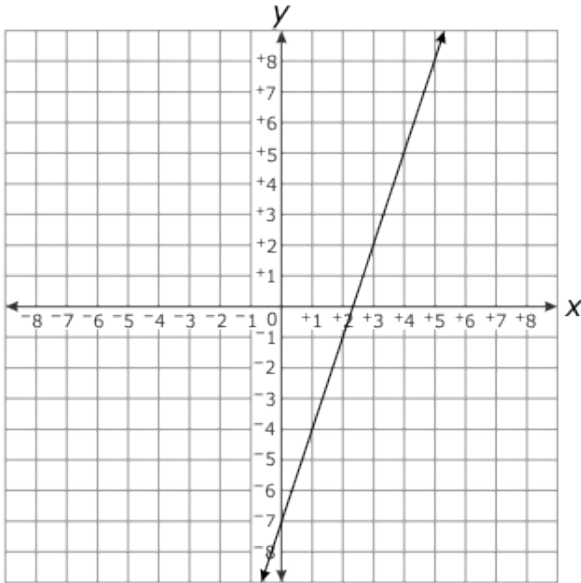
B.



C.

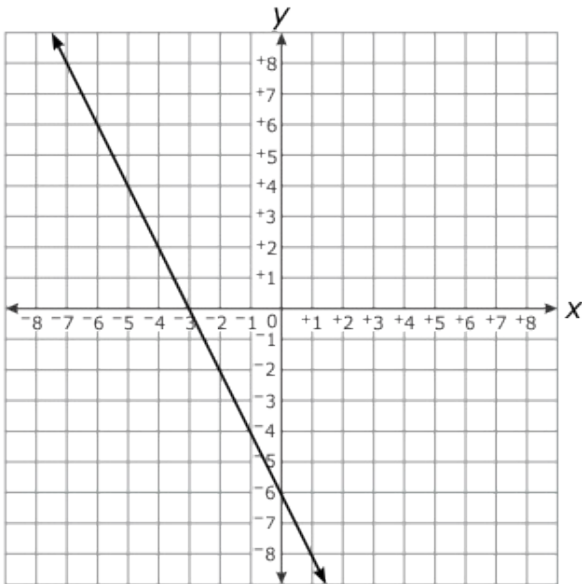


D.

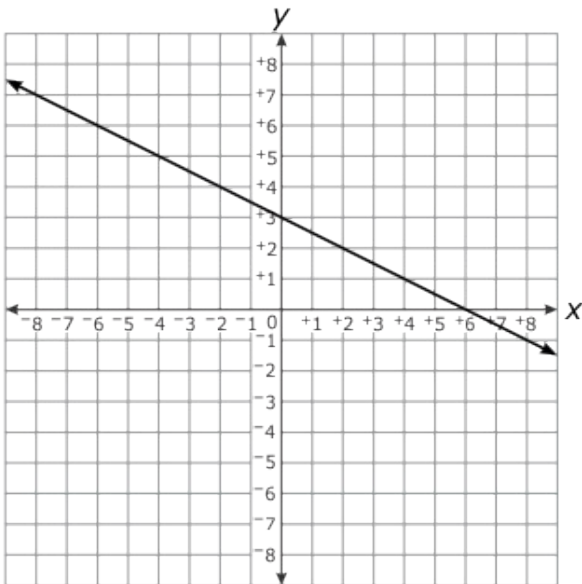


34. Which graph shows the line of the equation $y = 2x - 6$?

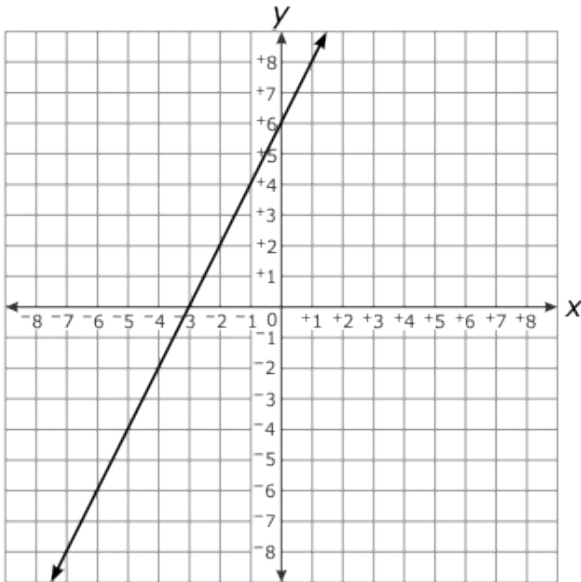
A.



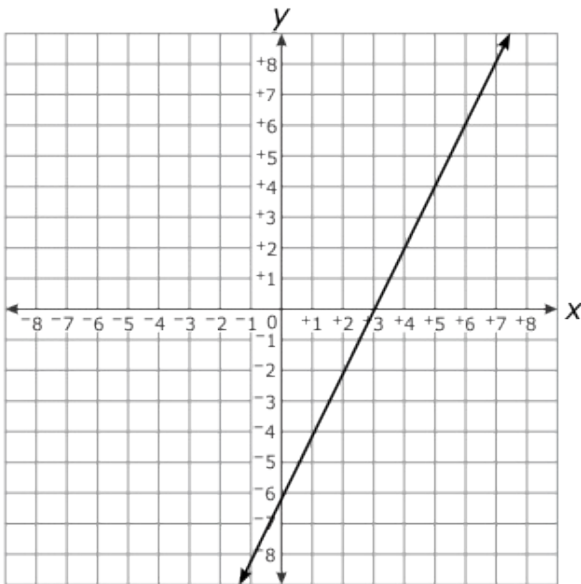
B.



C.

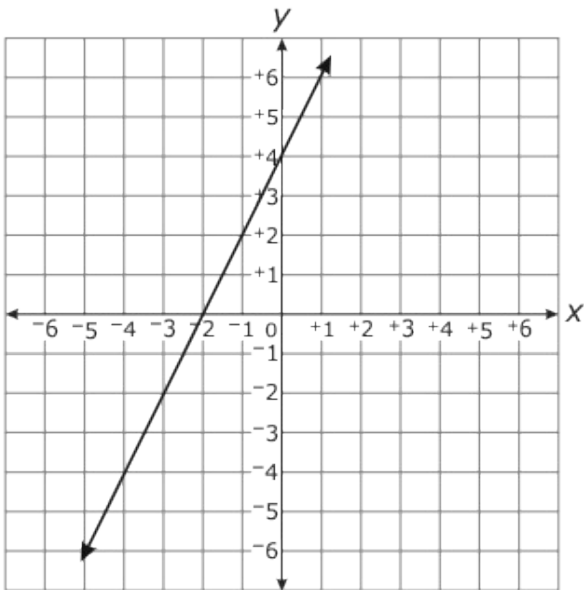


D.

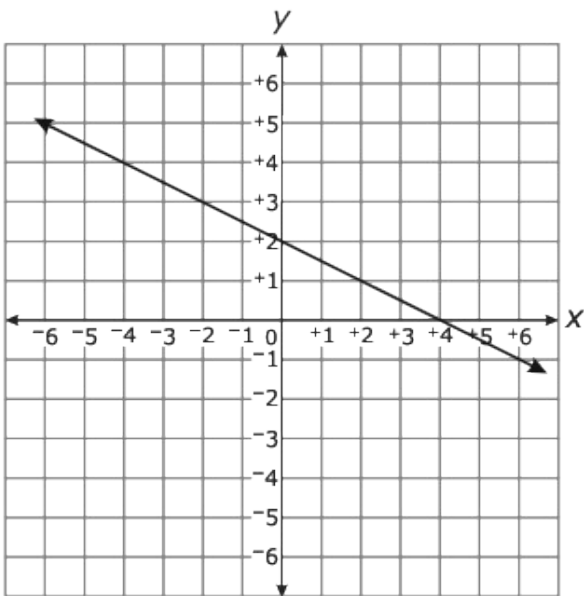


35. Which shows the graph of the equation $y = 2x + 4$?

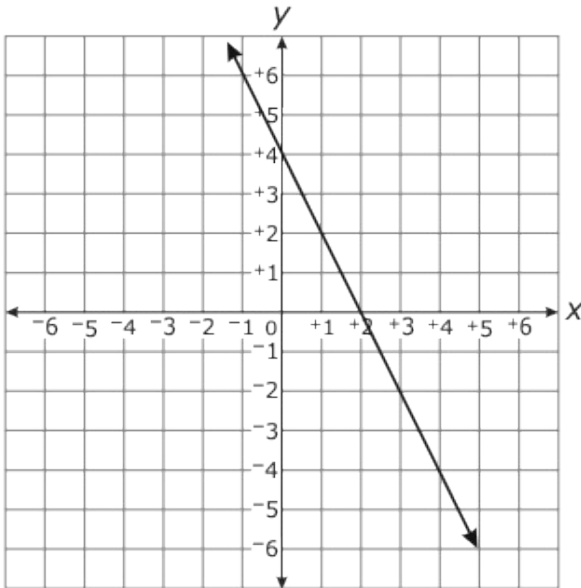
A.



B.



C.



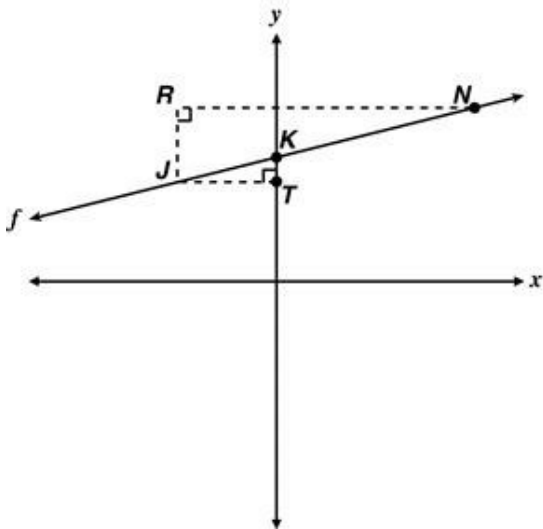
36. Which equation has a slope of $-\frac{2}{3}$ and a y -intercept of 5?

- A. $y - 5 = -\frac{2}{3}x$
- B. $y + 5 = -\frac{2}{3}x$
- C. $y = -\frac{2}{3}(x - 5)$
- D. $y = -\frac{2}{3}(x + 5)$

37. The slope of a line is -5 . Which of these could be the ratio of the vertical side length to the horizontal side length of a right triangle whose hypotenuse is formed by this line?

- A. 5:2
- B. $-5:2$
- C. 15:3
- D. $-15:3$

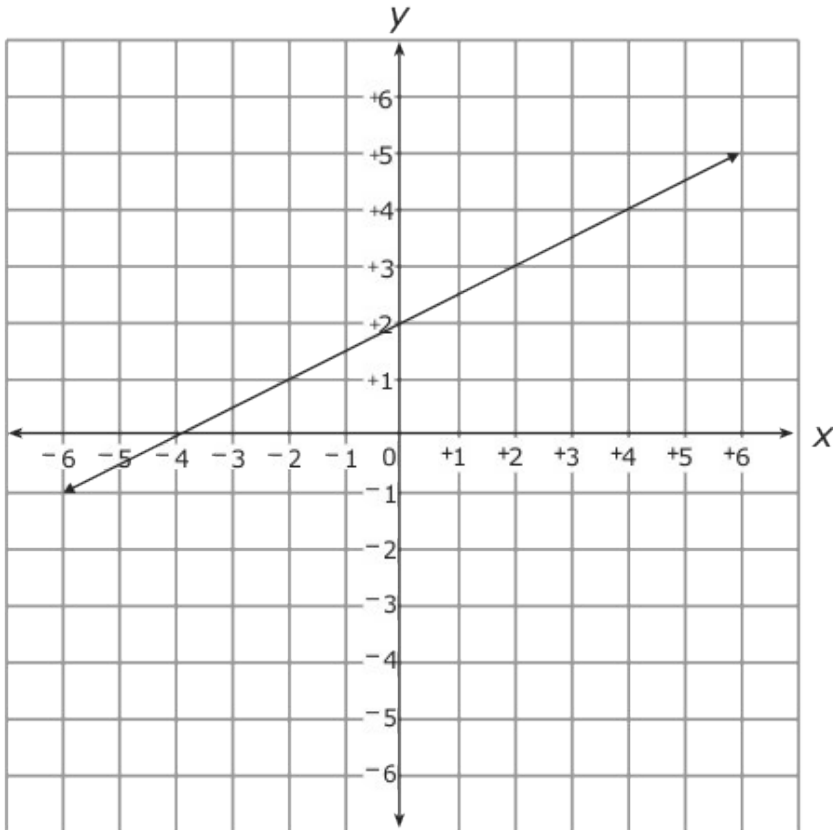
38. Points J, K, N are collinear on line f in the coordinate plane. Triangle JNR and Triangle KJT are similar.



Which proportion demonstrates that the slope of line f is the same between any two distinct points?

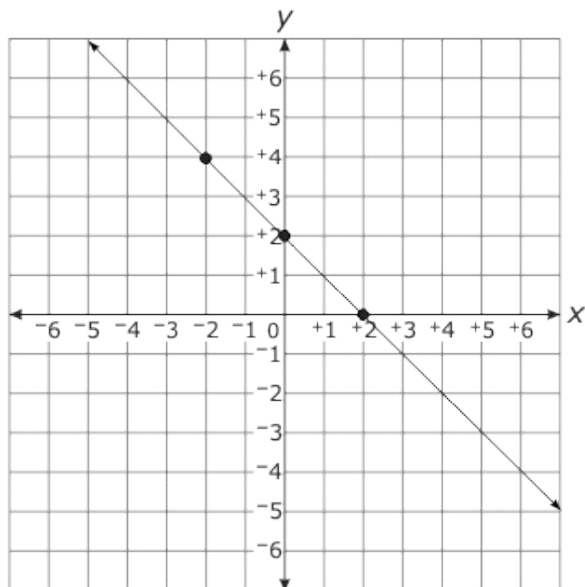
- A. $\frac{NR}{JR} = \frac{JT}{KT}$
- B. $\frac{NJ}{KN} = \frac{TJ}{KJ}$
- C. $\frac{JR}{NR} = \frac{KT}{JT}$
- D. $\frac{JK}{JT} = \frac{KN}{RN}$

39. Which is an equation of the line graphed below?



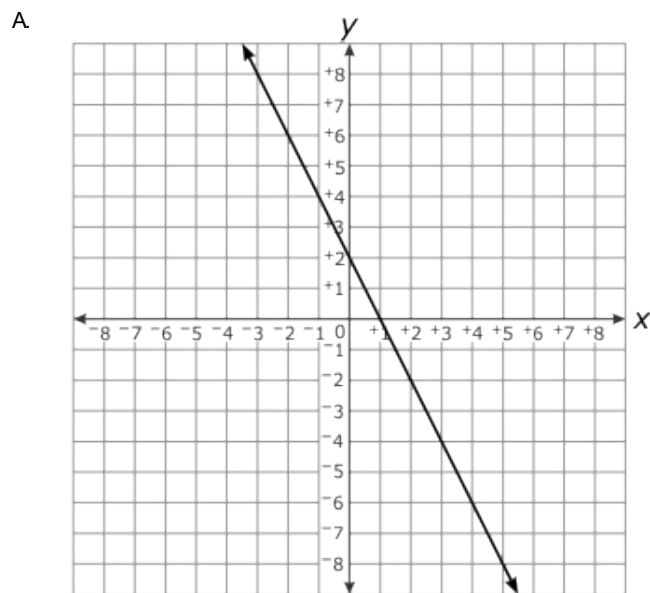
- A. $y = 2x + 2$
- B. $y = \frac{1}{2}x + 2$
- C. $y = -\frac{1}{2}x + 2$
- D. $y = -2x + 2$

40. Which is an equation of the line graphed below?

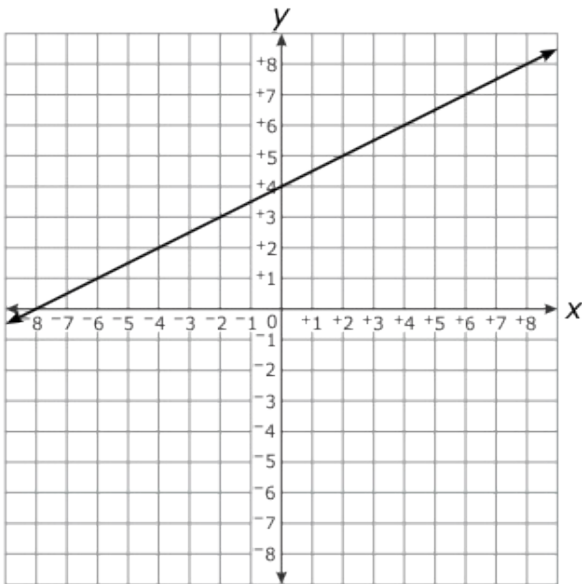


- A. $y = 2x$
- B. $y = x + 2$
- C. $y = -x + 2$
- D. $y = -2x$

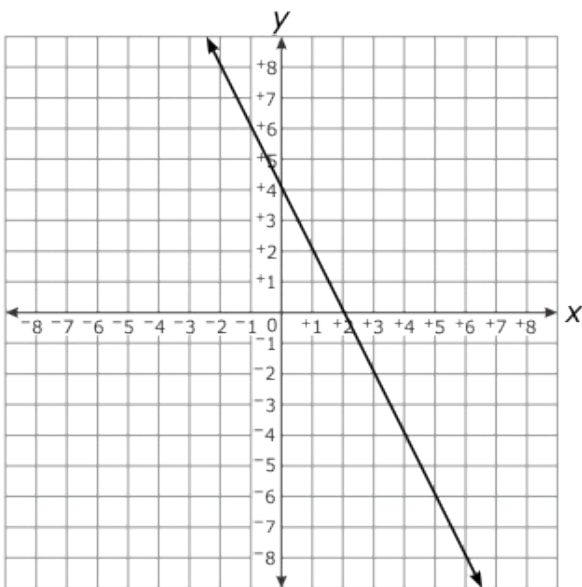
41. Which choice shows the graph of $y = 0.5x + 2$?



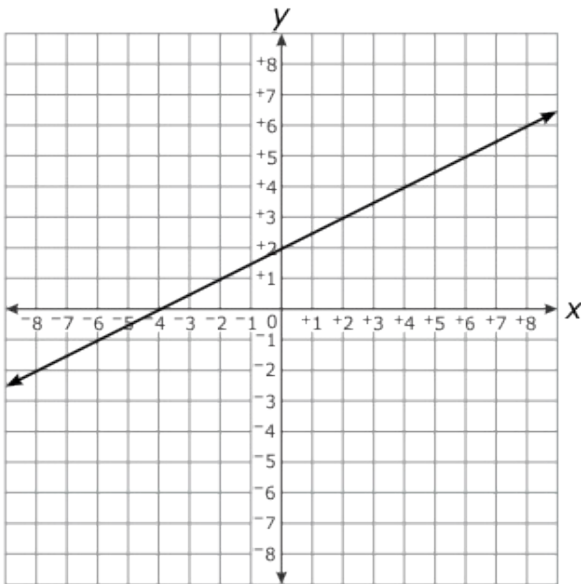
B.



C.

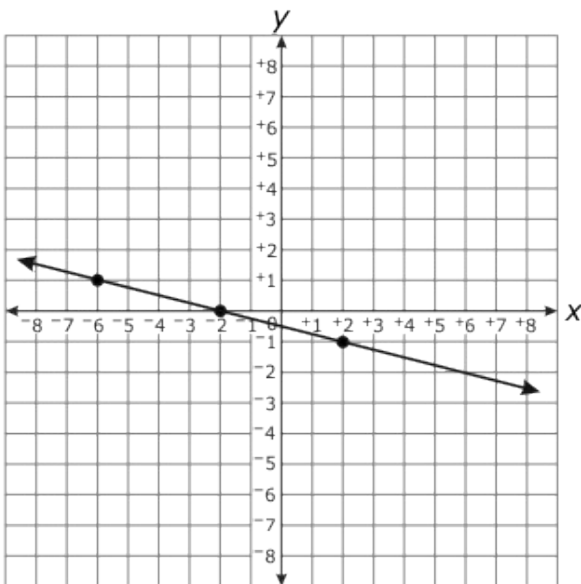


D.

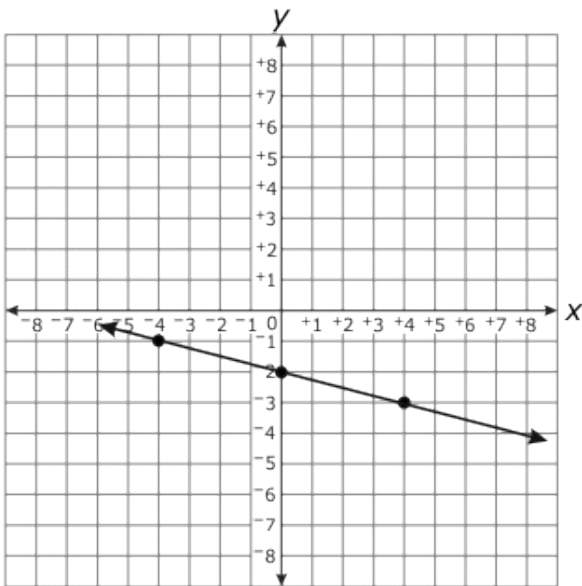


42. Which shows the graph of the equation $y = -\frac{1}{4}x - 2$?

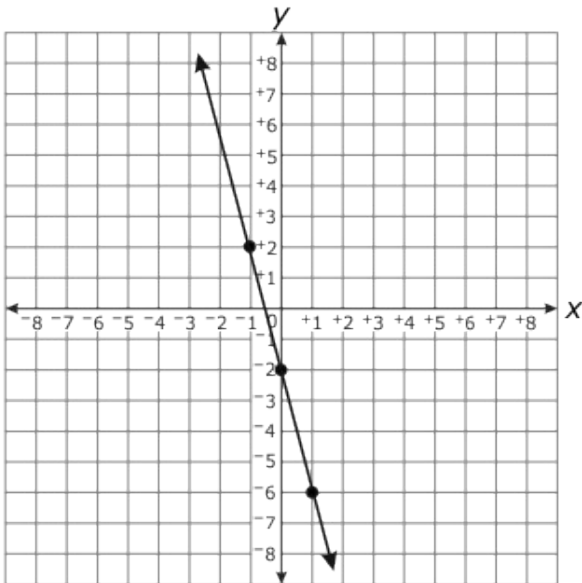
A.



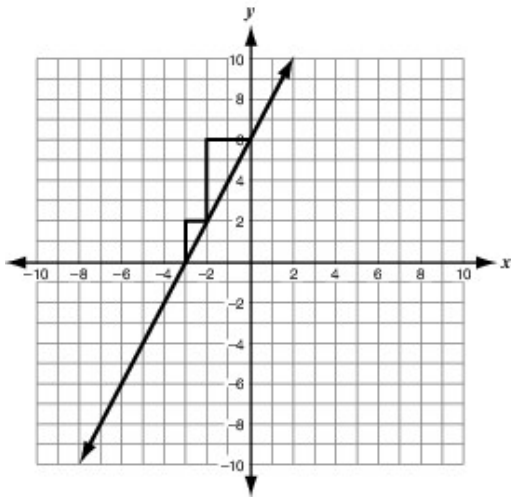
B.



C.

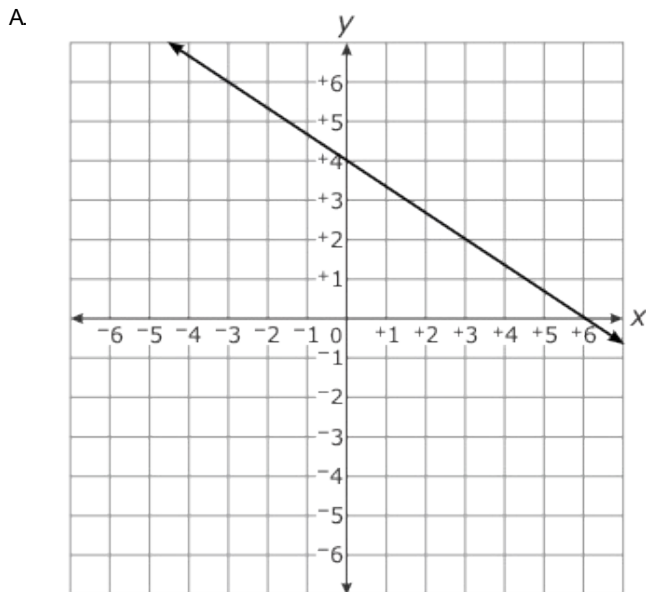


43. The graph below shows two similar right triangles with both of the hypotenuses of these triangles falling on the same line.

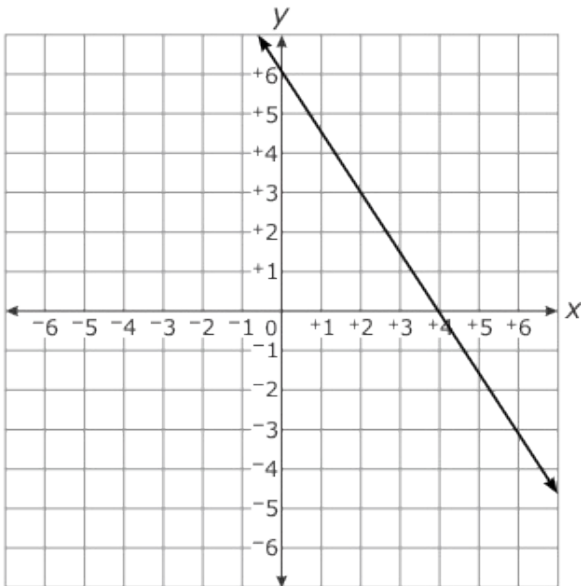


What is the equation of the line?

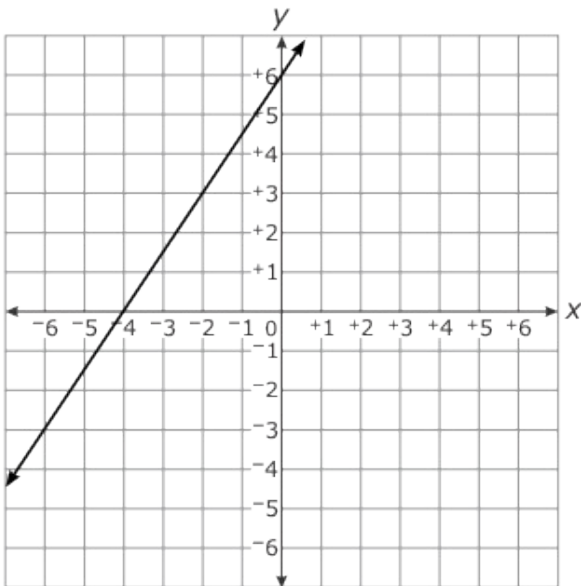
- A. $y = -2x + 6$
 - B. $y = 2x + 6$
 - C. $y = -2x$
 - D. $y = 2x$
44. Which is the graph of the equation $y = -\frac{3}{2}x + 6$?



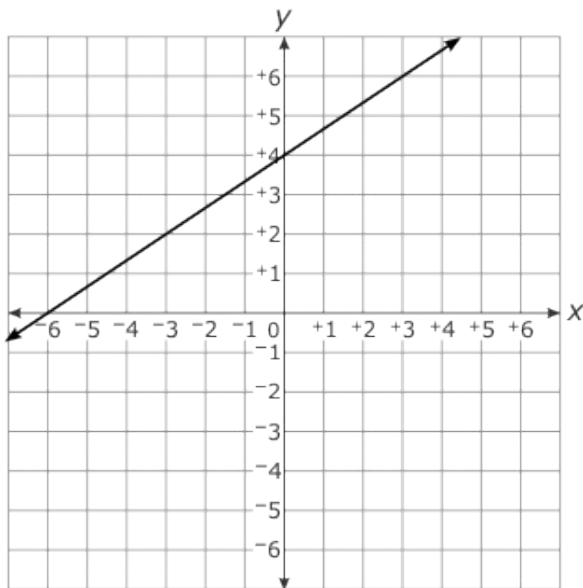
B.



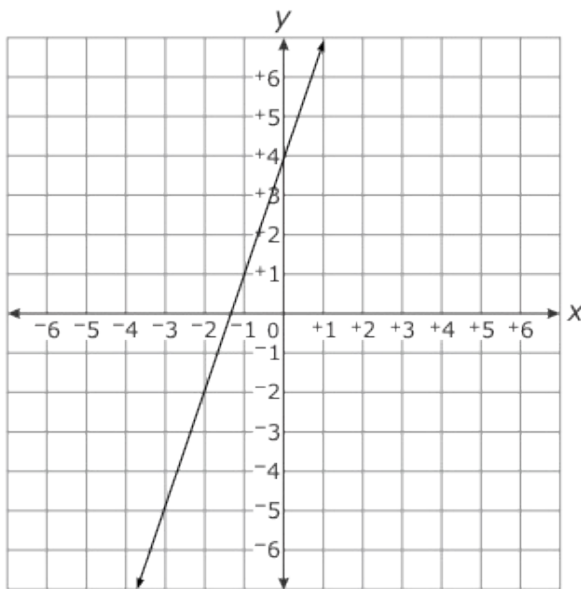
C.



D.



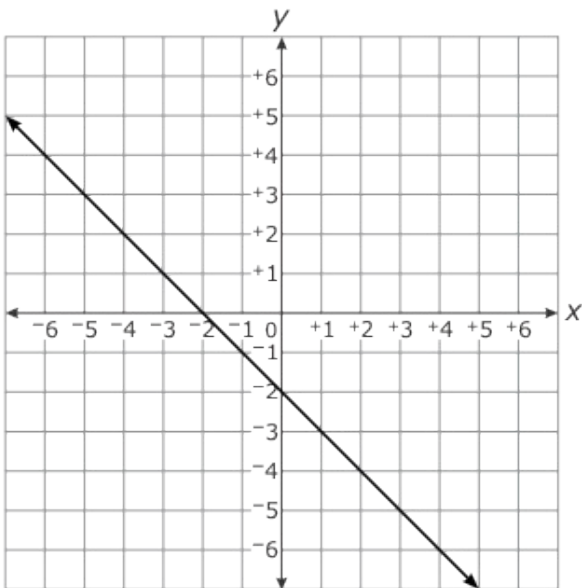
45. Which is an equation of the line graphed below?



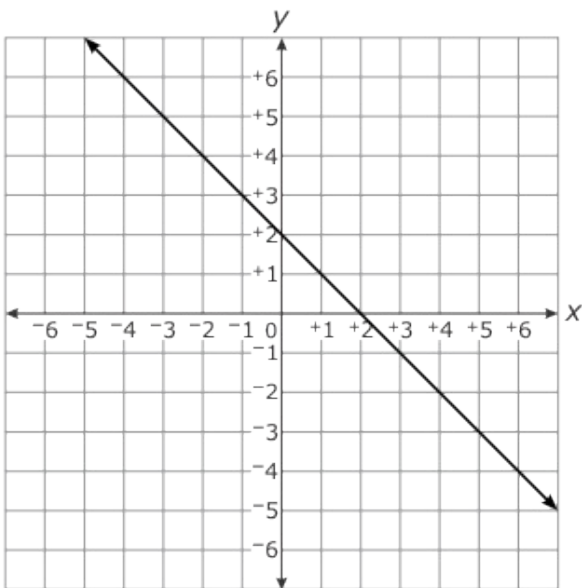
- A. $y = 3x + 4$
- B. $y = \frac{1}{3}x + 4$
- C. $y = -\frac{1}{3}x + 4$
- D. $y = -3x + 4$

46. Which is the graph of $y = -x - 2$?

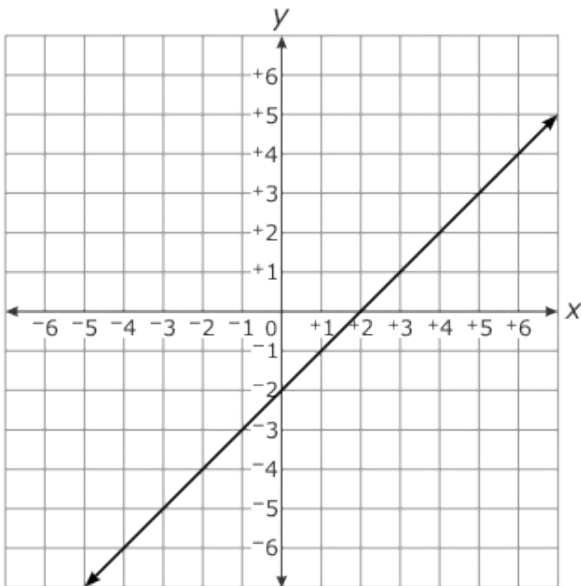
A.



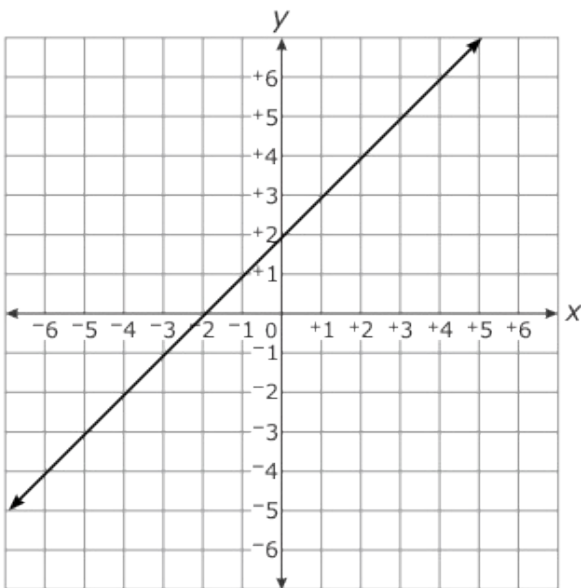
B.



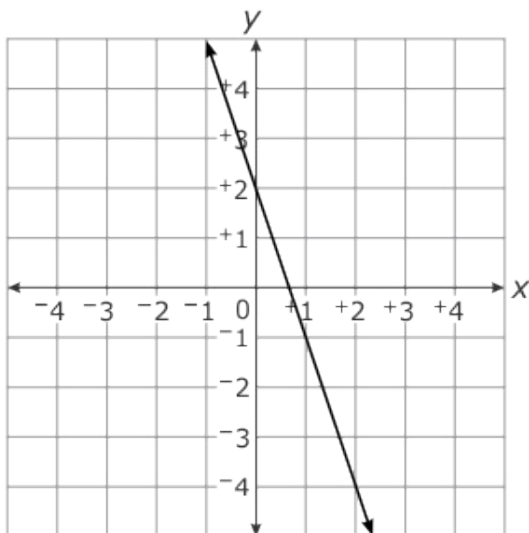
C.



D.



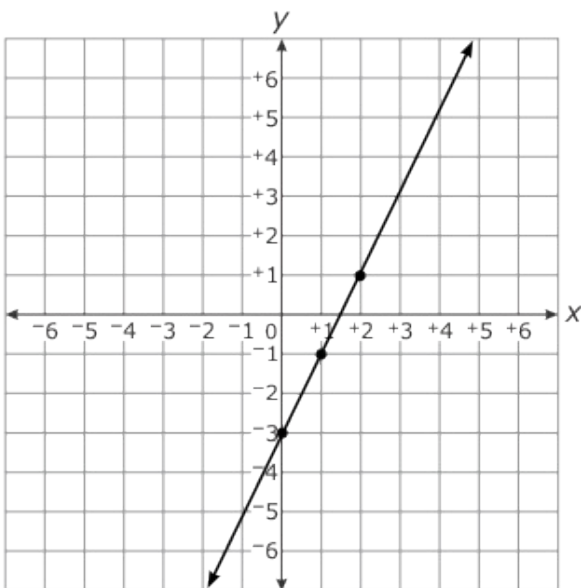
47. Which is an equation for the line graphed below?



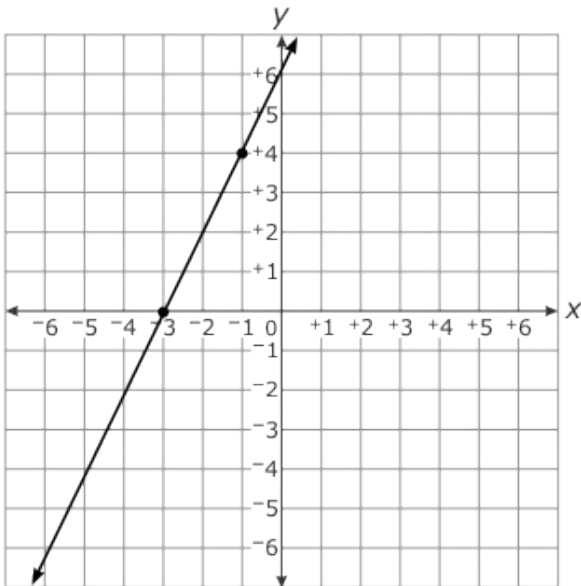
- A. $y = -3x + 2$
- B. $y = -\frac{1}{3}x + 2$
- C. $y = \frac{1}{3}x + 2$
- D. $y = 3x + 2$

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

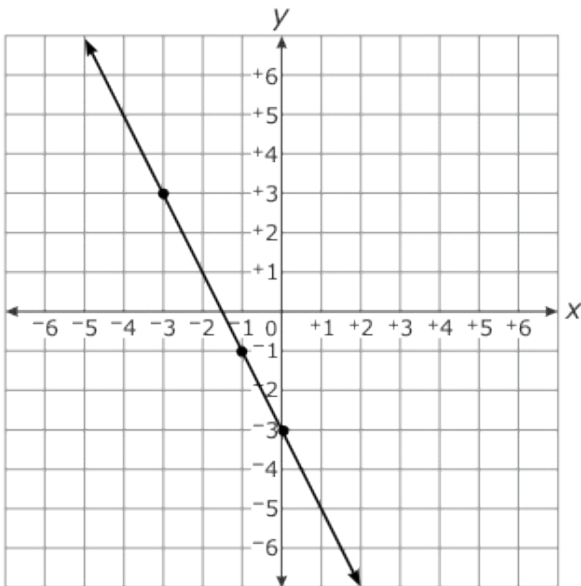
A.



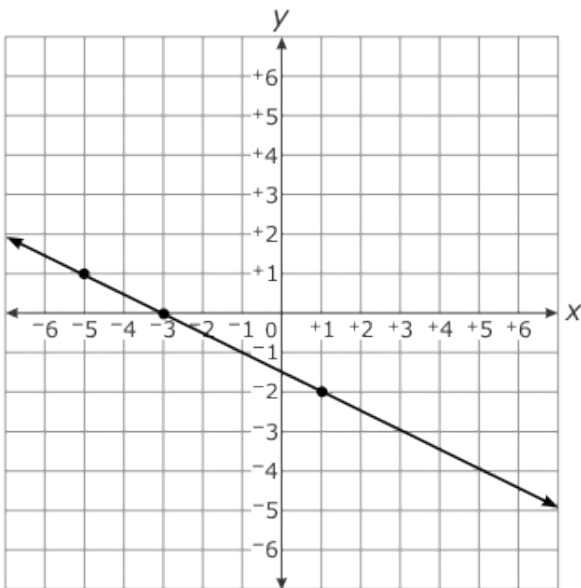
B.



C.



D.

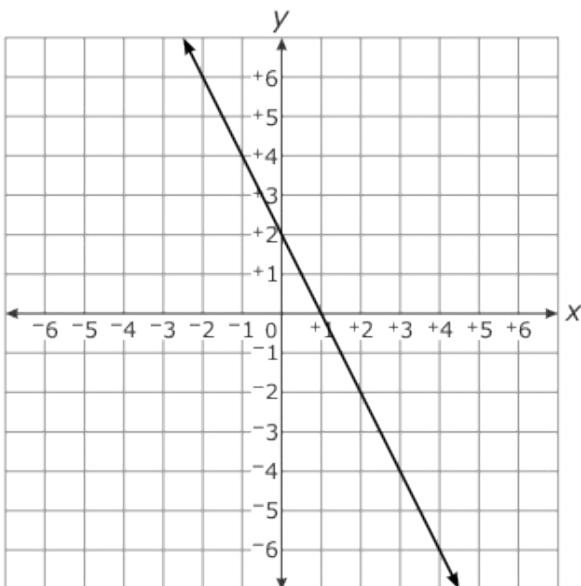


49. What is the equation of a line with a y-intercept of -3 and a slope of 5?

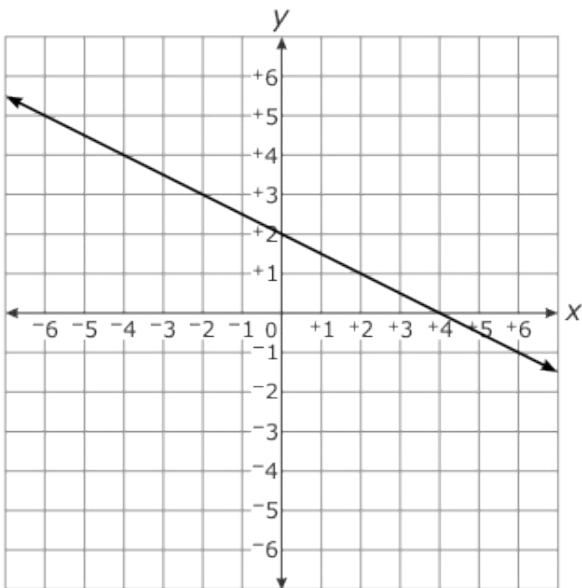
- A. $y = -3x - 5$
- B. $y = -3x + 5$
- C. $y = 5x - 3$
- D. $y = 5x + 3$

50. Which is the graph of the equation $y = -\frac{1}{2}x + 2$?

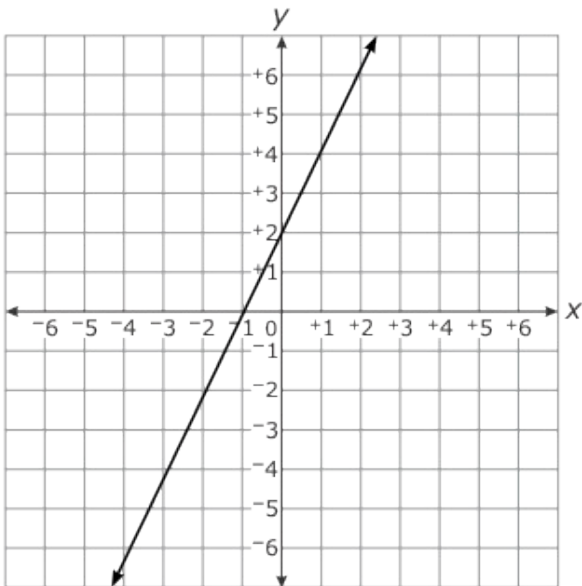
A.



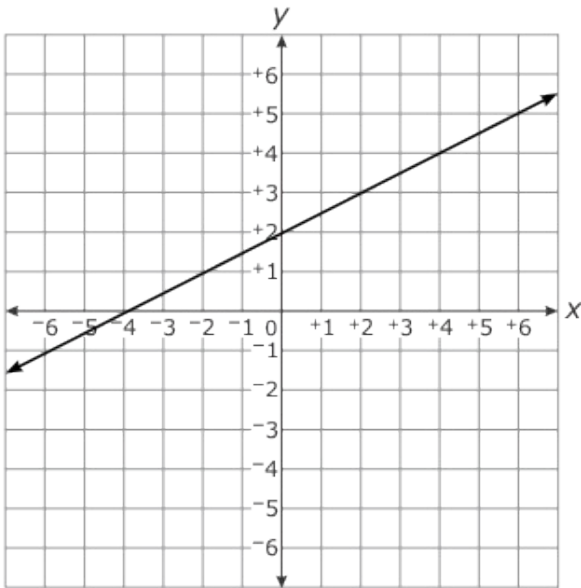
B.



C.

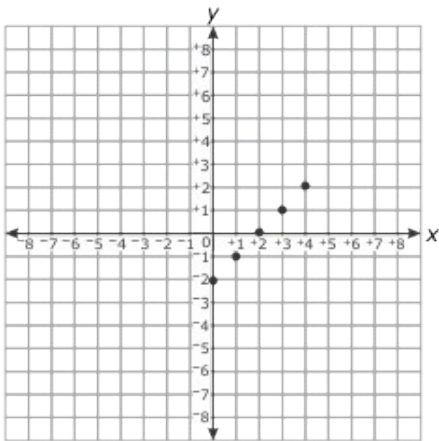


D.

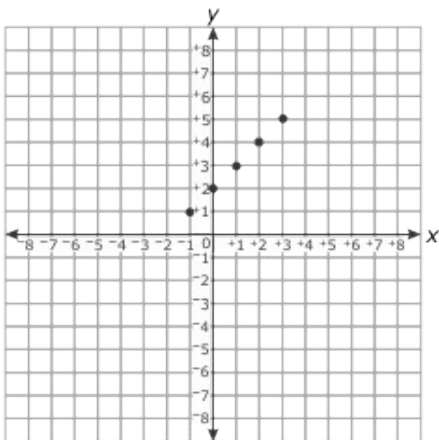


51. In which graph do all of the plotted points lie on the line $y = x + 2$?

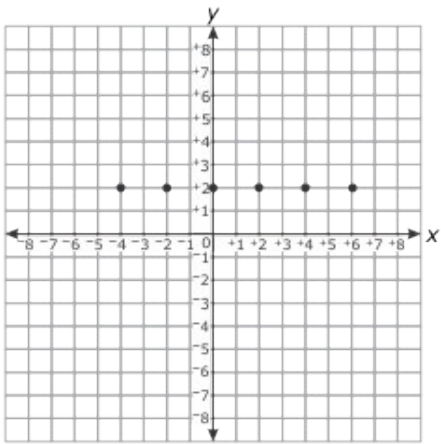
A.



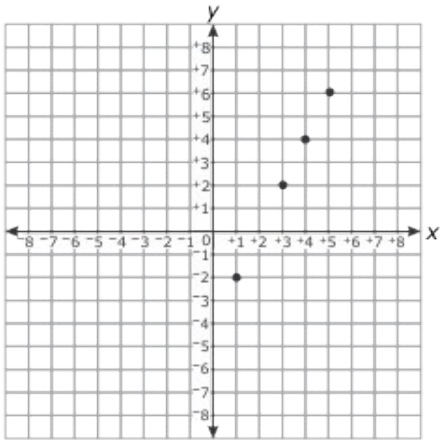
B.



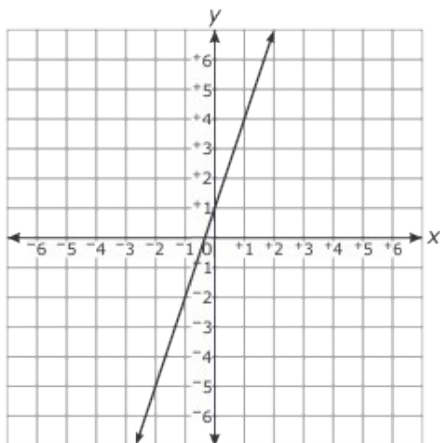
C.



D.

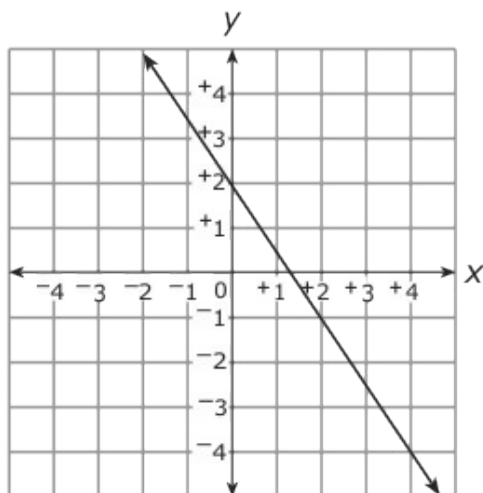


52. Which choice is a correct equation for the line graphed below?



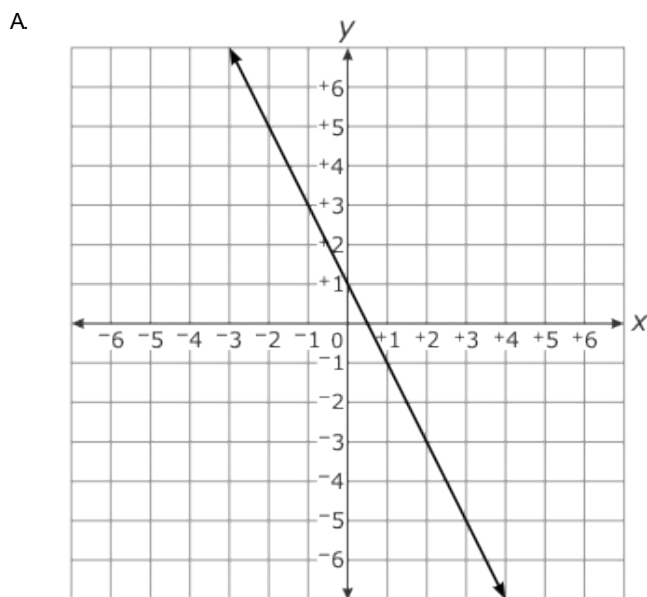
- A. $y = 3x + 1$
- B. $y = 2x + 1$
- C. $y = \frac{1}{2}x + 1$
- D. $y = \frac{1}{3}x + 1$

53. Which is an equation of the line graphed below?

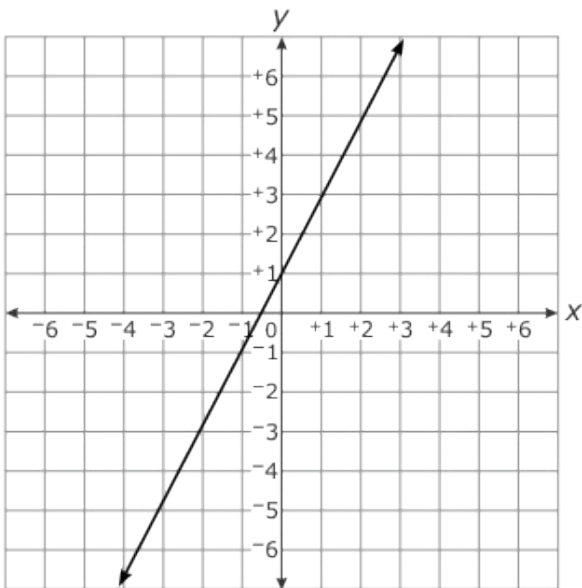


- A. $y = \frac{3}{2}x + 2$
- B. $y = \frac{2}{3}x + 2$
- C. $y = -\frac{2}{3}x + 2$
- D. $y = -\frac{3}{2}x + 2$

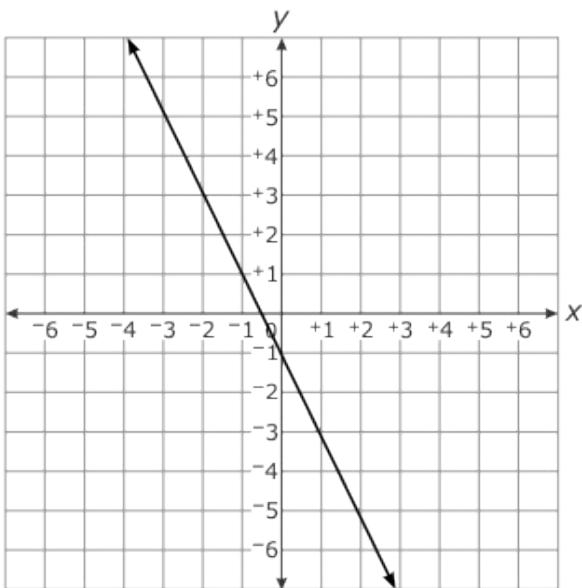
54. Which graph shows a line with a slope of 2 and a y-intercept of 1?



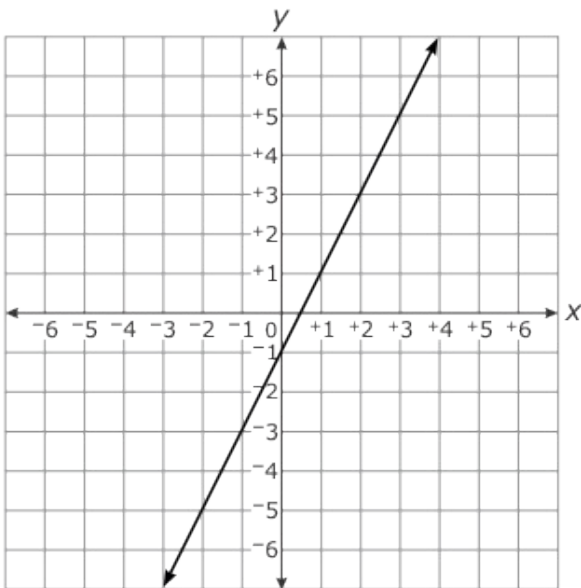
B.



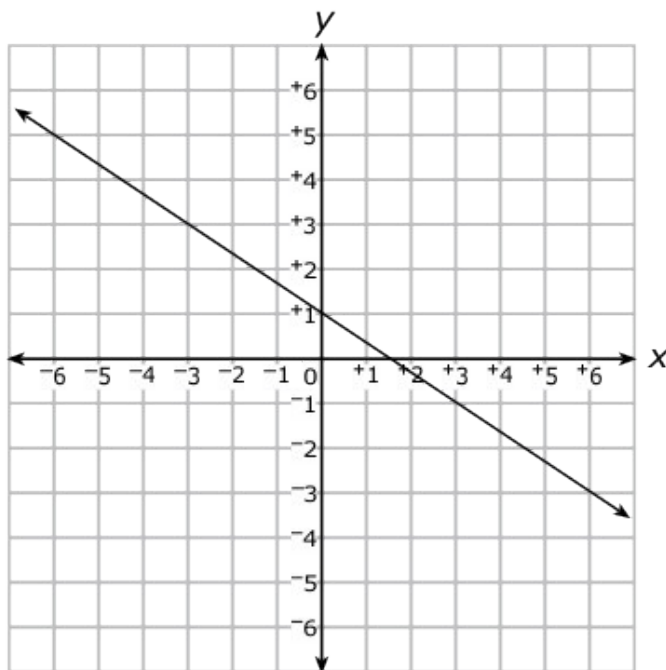
C.



D.



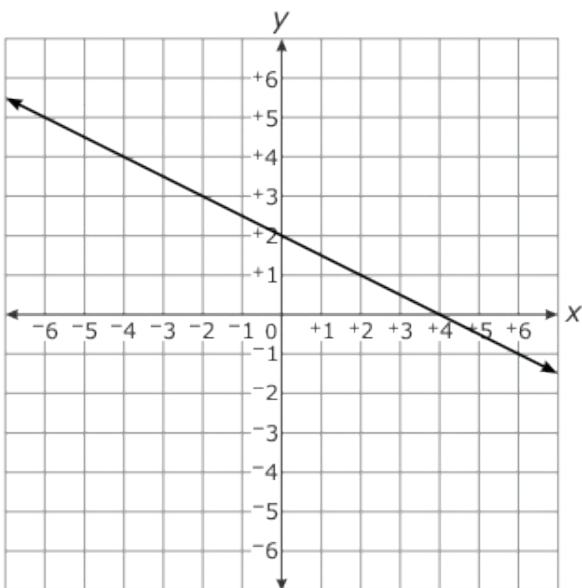
55. Which is an equation for the line shown on the graph below?



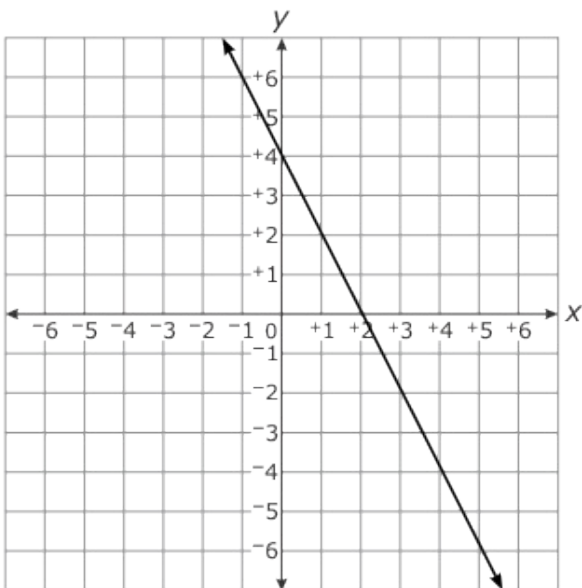
- A. $y = \frac{3}{2}x + 1$
- B. $y = \frac{2}{3}x + 1$
- C. $y = -\frac{2}{3}x + 1$
- D. $y = -\frac{3}{2}x + 1$

56. Which graph below shows the line for the equation $y = 2x + 4$?

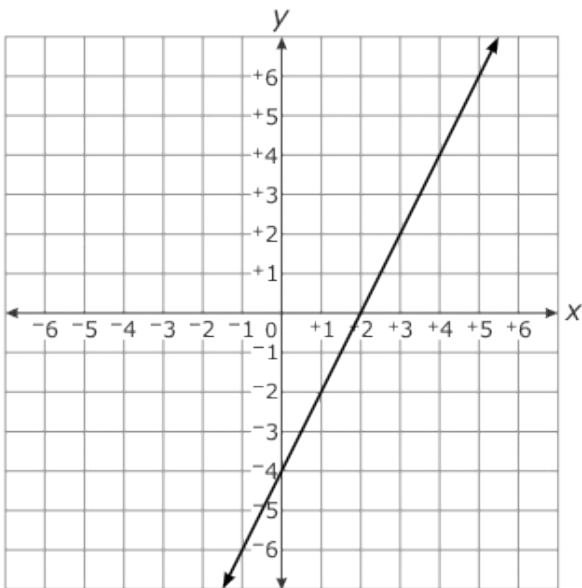
A.



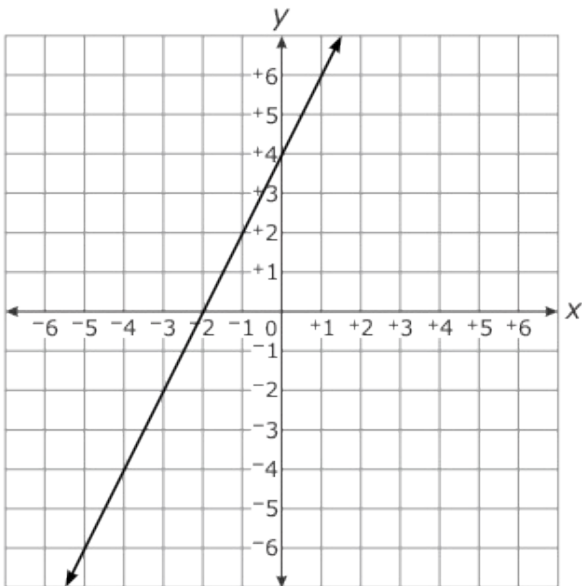
B.



C.

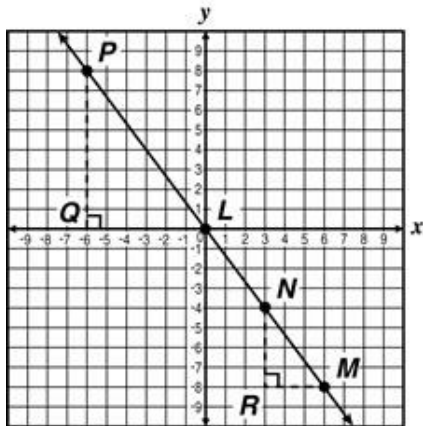


D.

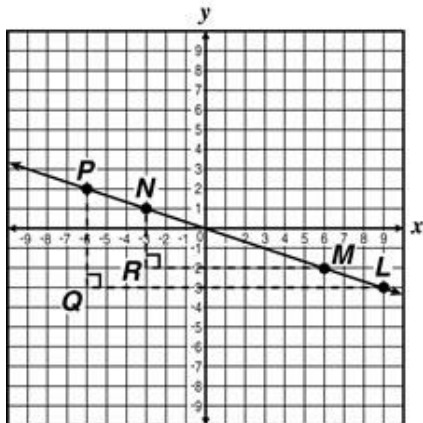


57. Which graph uses $\triangle PLQ$ and $\triangle NMR$ to demonstrate a slope of $\frac{4}{3}$?

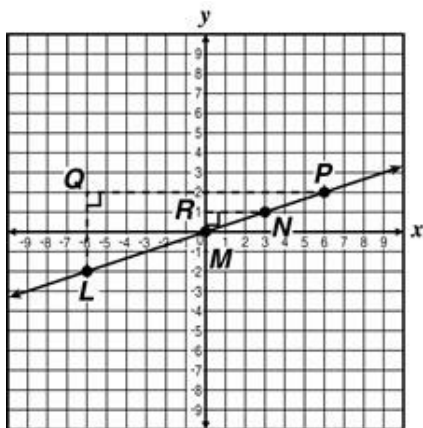
A.



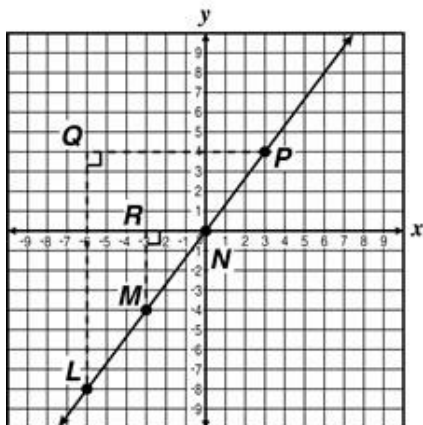
B.



C.

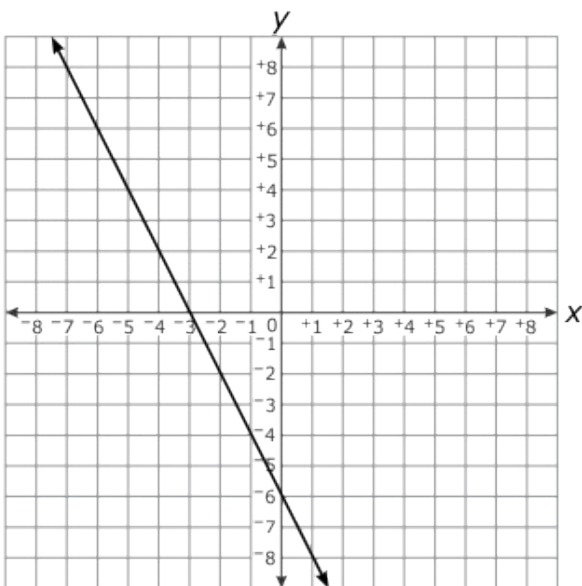


D.

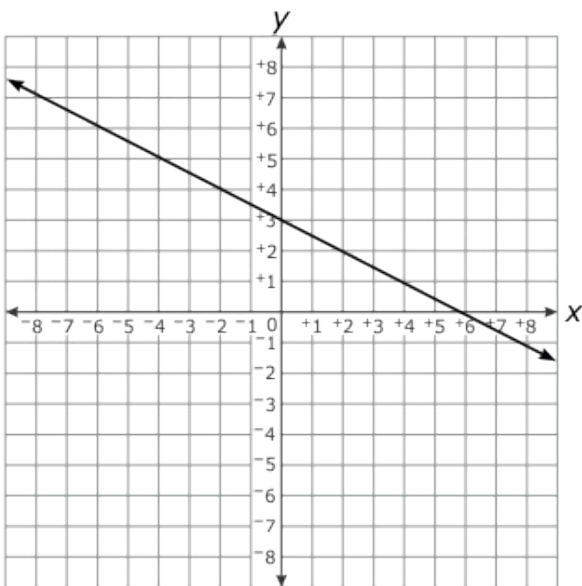


58. Which shows the graph of the equation $y = 2x - 6$?

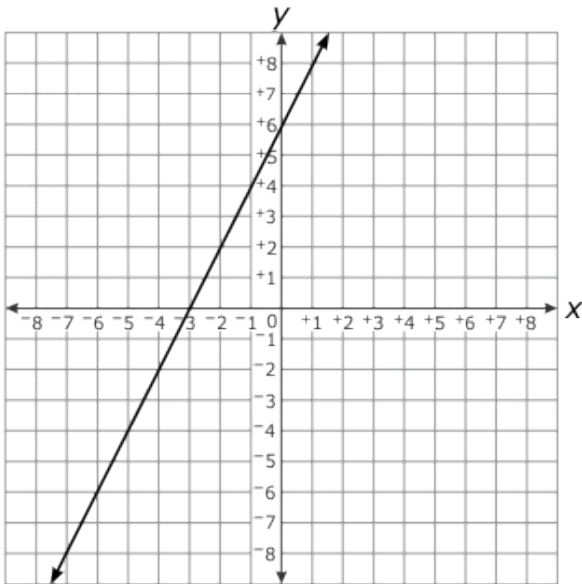
A.



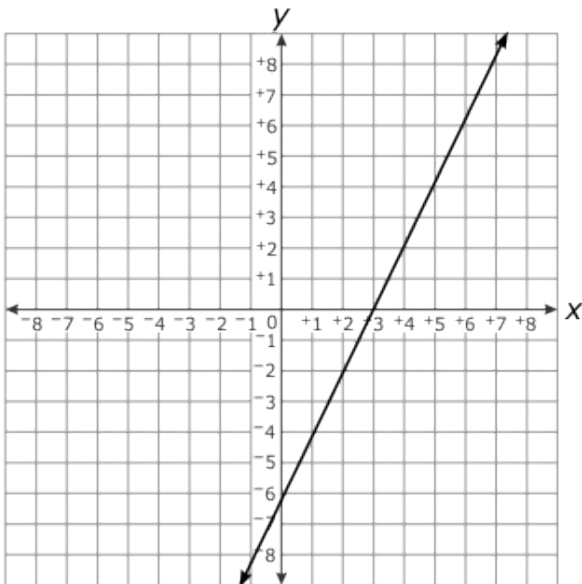
B.



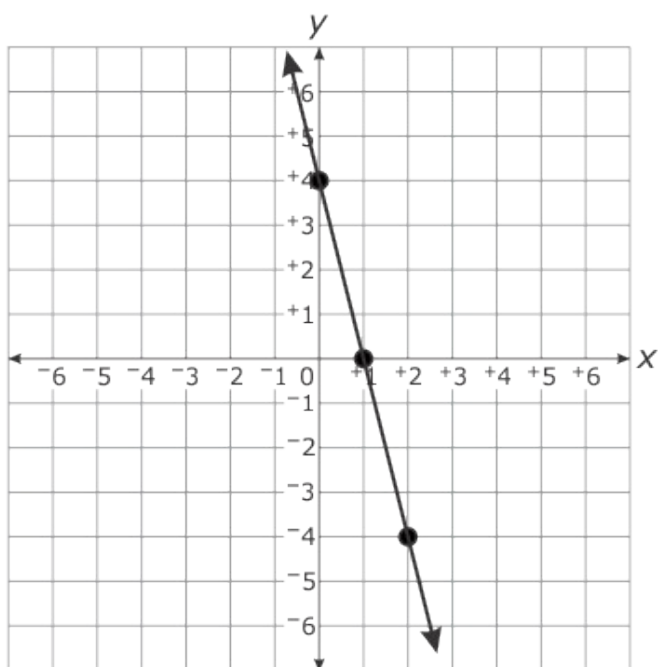
C.



D.

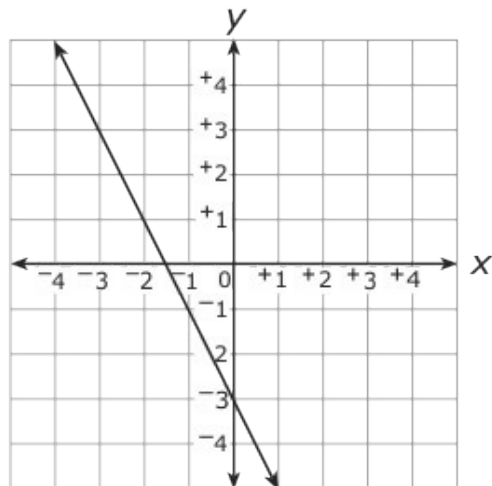


59. Which is an equation of the line graphed below?



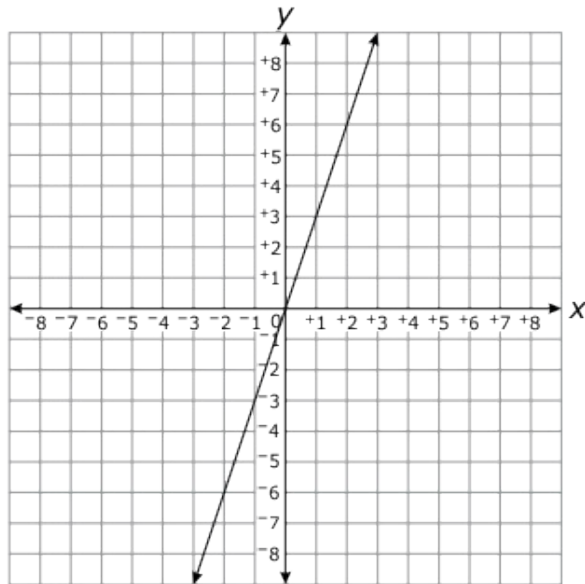
- A. $y = -4x + 4$
- B. $y = x + 4$
- C. $y = 4x + 4$

60. Which is an equation of the line graphed below?



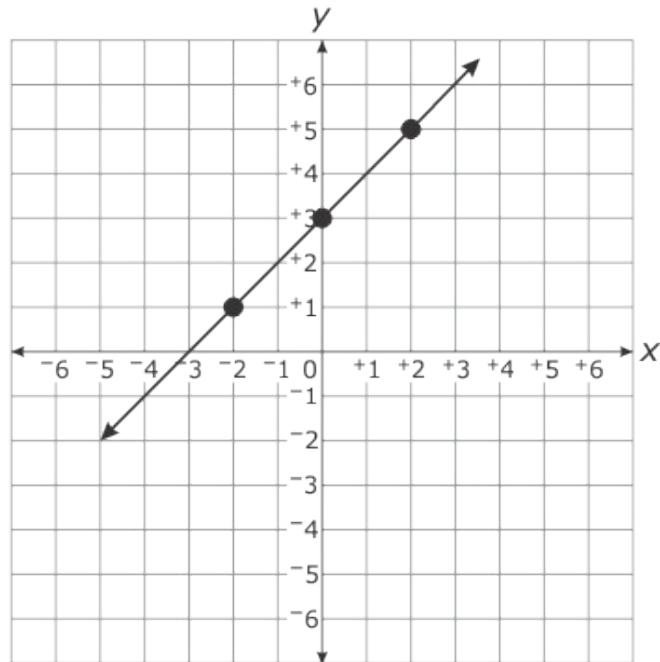
- A. $y = 2x - 3$
- B. $y = \frac{1}{2}x - 3$
- C. $y = -\frac{1}{2}x - 3$
- D. $y = -2x - 3$

61. Which is an equation of the line graphed below?



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

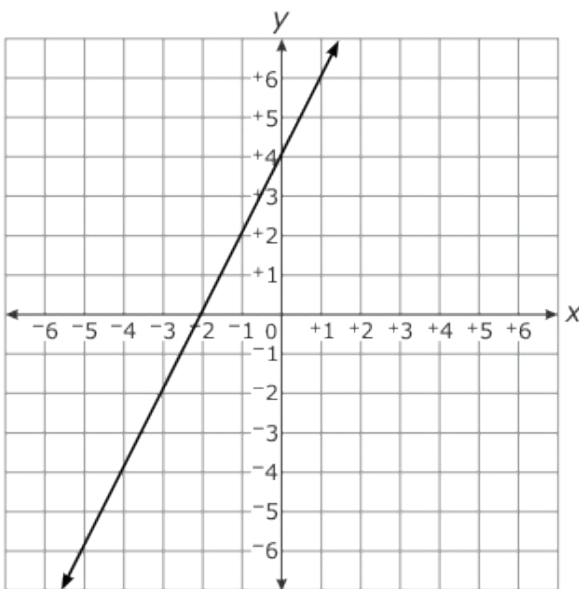
62. Which is an equation of the line graphed below?



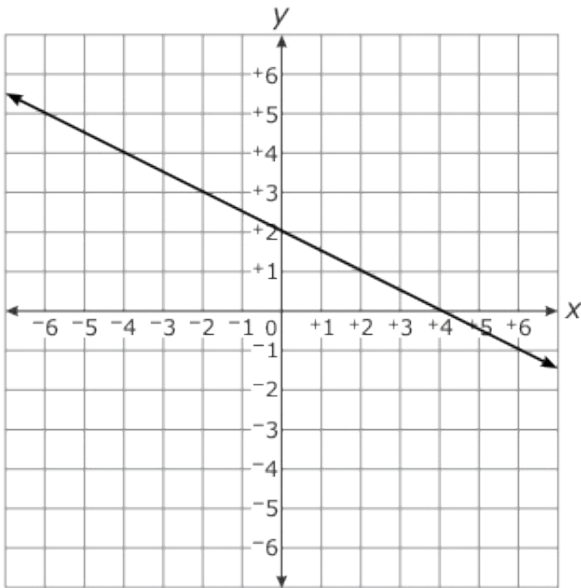
- A. $y = -3x + 3$
- B. $y = x + 3$
- C. $y = 3x - 3$

63. Which choice is the graph of $y = -2x + 4$?

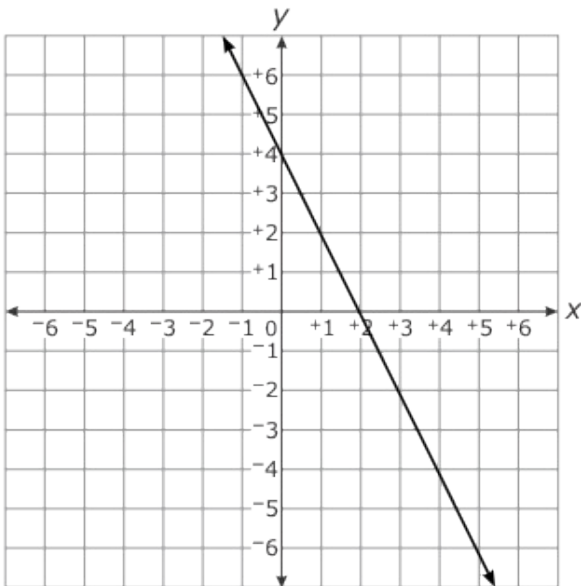
A.



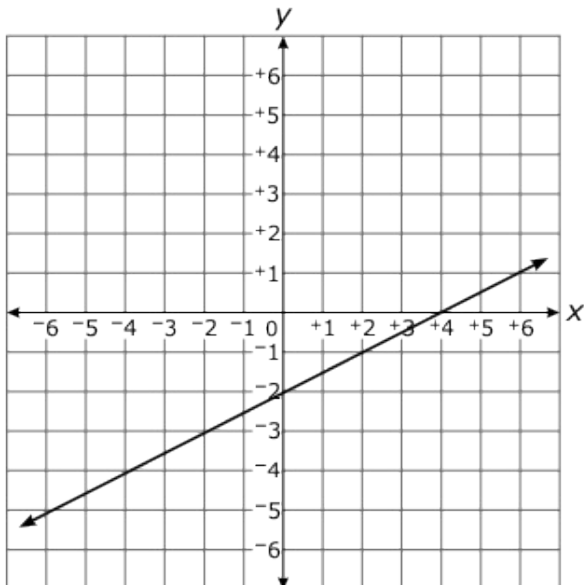
B.



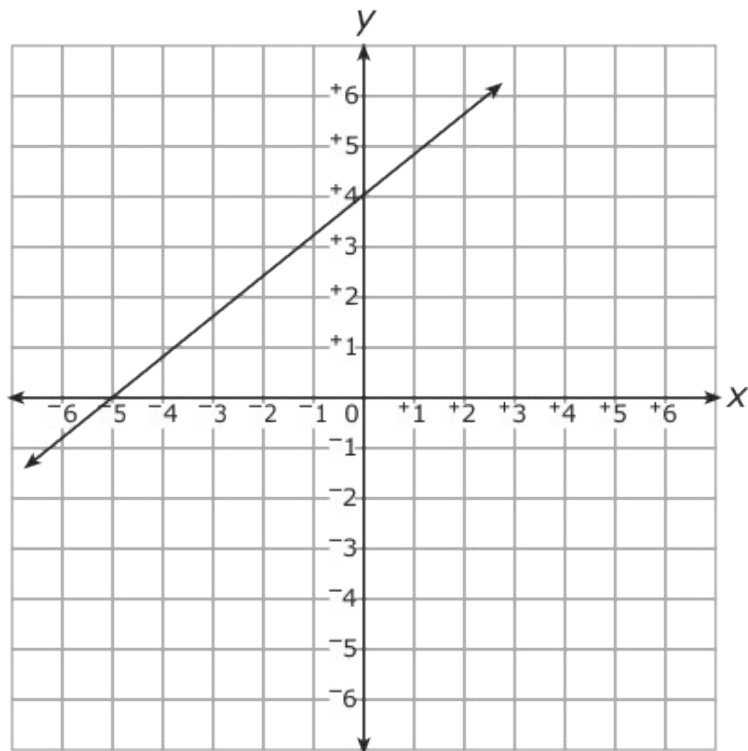
C.



D.

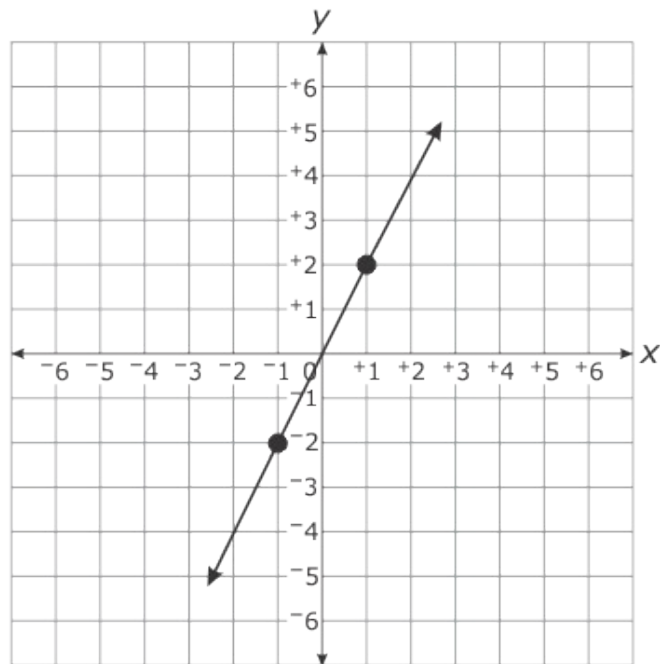


64. Which is an equation of the line graphed below?



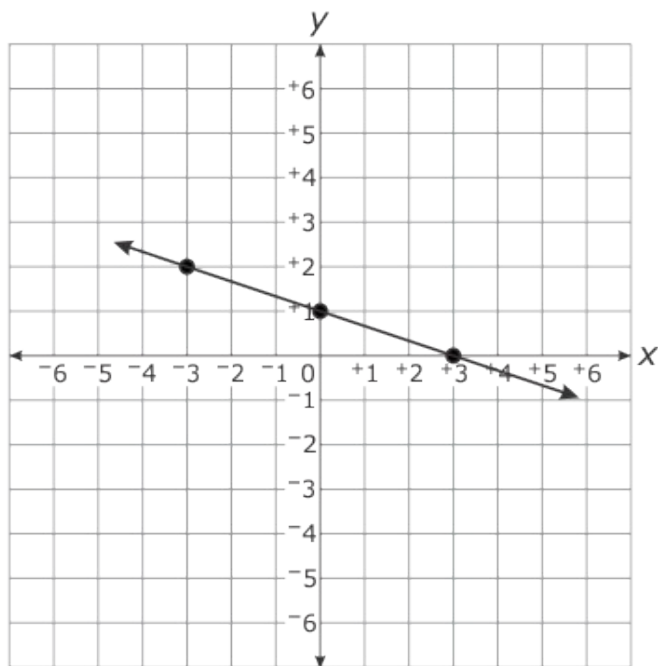
- A. $y = \frac{5}{4}x + 4$
- B. $y = \frac{4}{5}x + 4$
- C. $y = \frac{-4}{5}x + 4$
- D. $y = \frac{-5}{4}x + 4$

65. Which is an equation of the line graphed below?



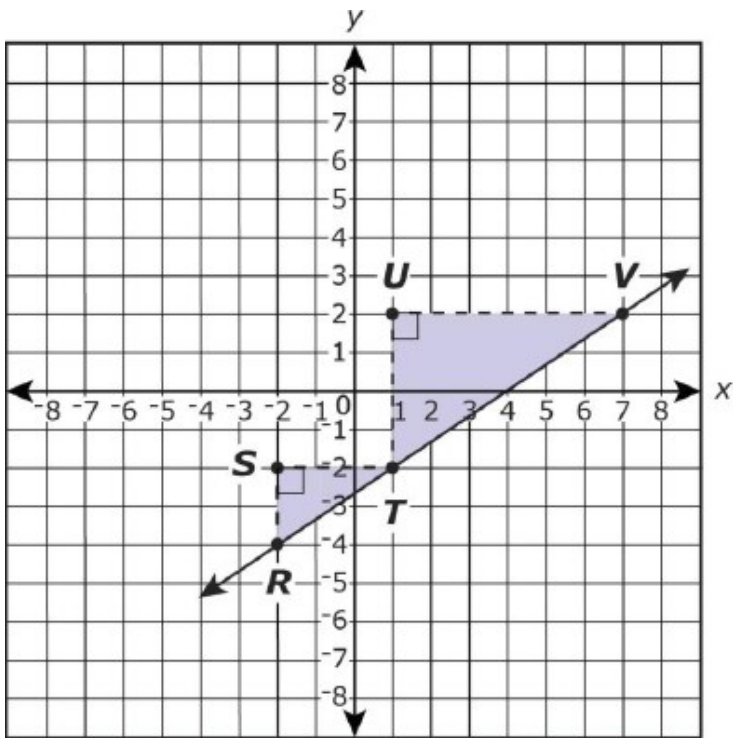
- A. $y = -2x$
- B. $y = \frac{1}{2}x$
- C. $y = 2x$

66. Which is an equation of the line graphed below?



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

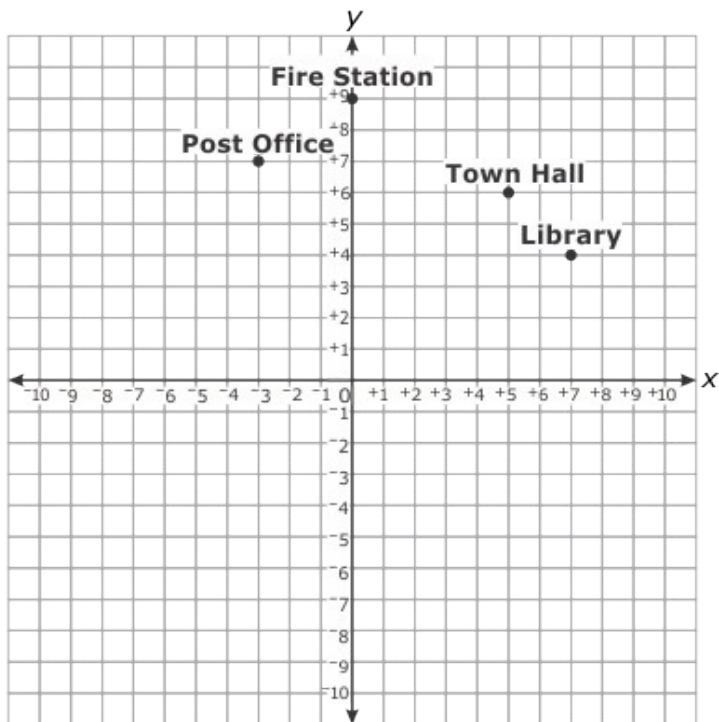
67. Use $\triangle RST$ and $\triangle TUV$ in the graph to answer the question.



Which statement is **not** true?

- A. $\triangle RST \sim \triangle TUV$
- B. $\frac{RS}{ST}$ represents the slope of \overline{RV}
- C. $\frac{UV}{TU}$ represents the slope of \overline{TV}
- D. $\frac{RS}{ST} = \frac{TU}{UV}$

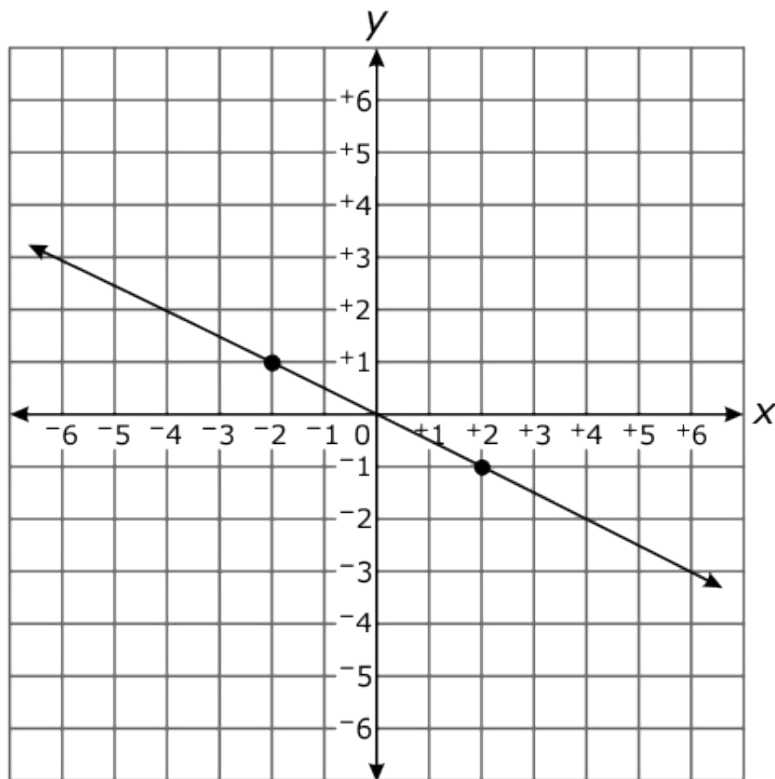
68. A town's buildings were graphed on a coordinate grid.



Which equation would represent a line drawn to connect the Town Hall and Post Office?

- A. $y = \frac{-2}{3}x + \frac{28}{3}$
- B. $y = \frac{-1}{8}x + \frac{53}{8}$
- C. $y = \frac{3}{5}x + 9$
- D. $y = \frac{1}{8}x + \frac{59}{3}$

69. Which is an equation of the line graphed below?

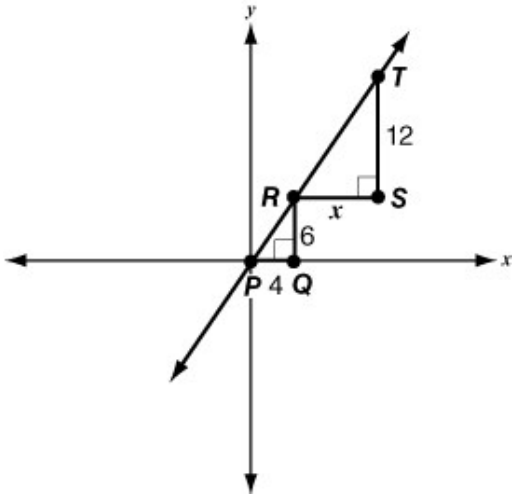


- A. $y = -2x$
- B. $y = -\frac{1}{2}x$
- C. $y = \frac{1}{2}x$

70. Annie was given two pieces of information and must write the equation of a line. She knows the line crosses the y-axis at the point $(0, 5)$ and has a slope of -4 . What is the equation of the line?

- A. $y = 5x - 4$
- B. $y = -5x + 4$
- C. $y = 4x - 5$
- D. $y = -4x + 5$

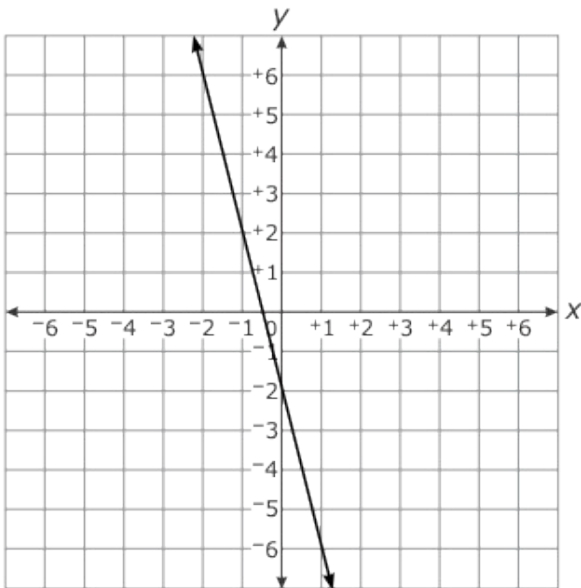
71. What is the value of x in the graph below?



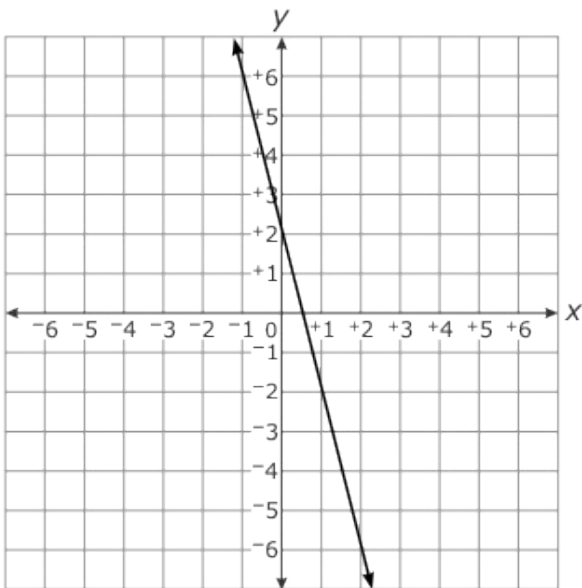
- A. 4
- B. 8
- C. 10
- D. 18

72. Which graph shows the line of the equation $y = -4x + 2$?

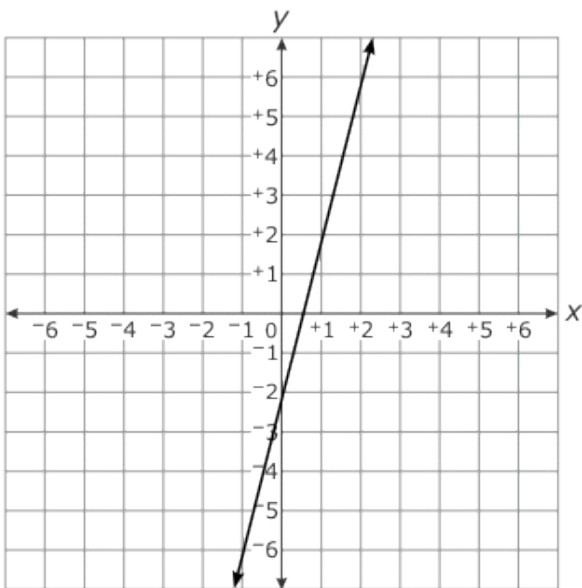
A.



B.



C.



D.

