

Unit 4 Test Review

Write the slope-intercept form of the equation of each line given the slope and y-intercept.

1) Slope = $-\frac{3}{2}$, y-intercept = 3

$$y = -\frac{3}{2}x + 3$$

2) Slope = $\frac{1}{3}$, y-intercept = 1

$$y = \frac{1}{3}x + 1$$

3) Slope = $\frac{1}{5}$, y-intercept = 4

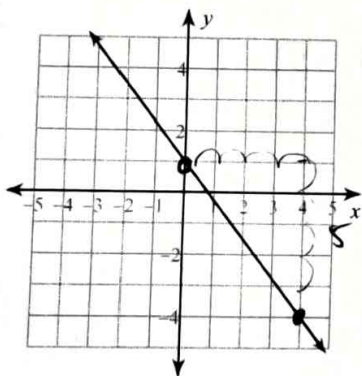
$$y = \frac{1}{5}x + 4$$

4) Slope = -5 , y-intercept = -5

$$y = -5x - 5$$

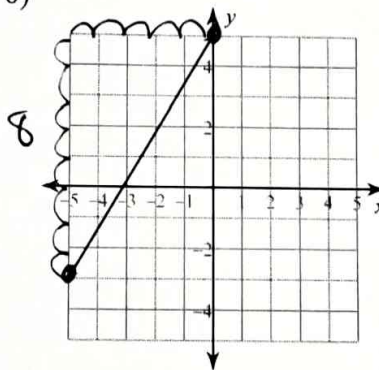
Write the slope-intercept form of the equation of each line.

5)



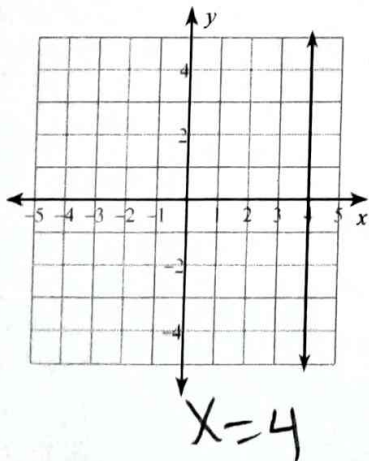
$$y = -\frac{5}{4}x + 1$$

6)



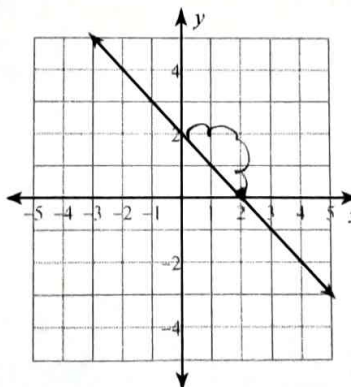
$$y = \frac{8}{3}x + 5$$

7)



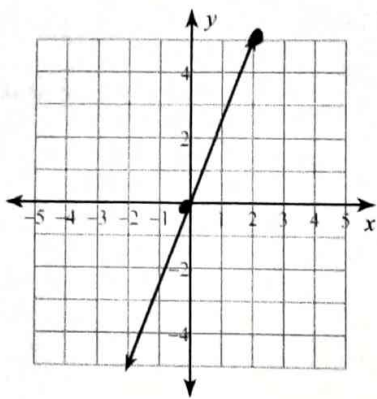
$$x = 4$$

8)



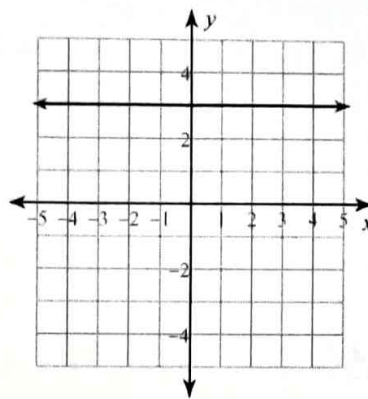
$$y = -x + 2$$

9)



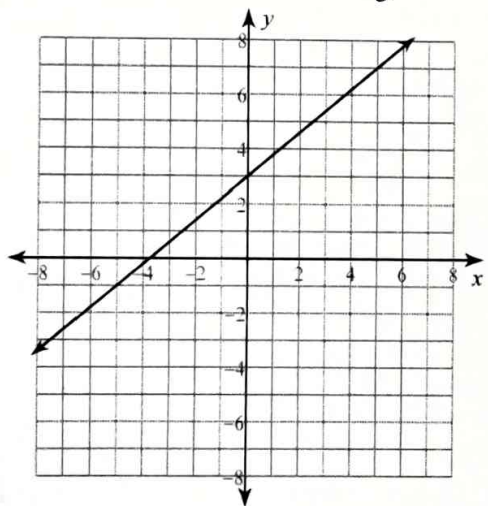
$$y = \frac{5}{2}x$$

10)



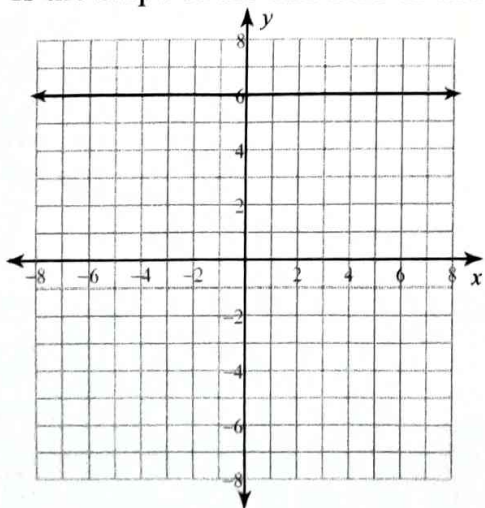
$$y = 3$$

- 11) Holly thinks the equation of the given line is $y = \frac{4}{5}x + 3$. Danny says she is wrong and the equation is actually $y = -\frac{4}{5}x + 3$. Who is right, Danny or Holly? Why are they right?



Holly is correct since the slope of the graph is positive and the slope of Holly's equation is positive.

- 12) Is the slope of the line zero or undefined? EXPLAIN how you know.



The slope is zero since the line is horizontal.

Write the slope-intercept form of the equation of the line through the given point and the given slope.

13) through: $(1, -4)$, slope = -6

$$y = -6x + 2$$

14) through: $(1, 3)$, slope = 0

$$y = 3$$

15) through: $(0, 4)$, slope = $-\frac{5}{3}$

$$y = -\frac{5}{3}x + 4$$

16) through: $(5, -3)$, slope = $-\frac{7}{5}$

$$y = -\frac{7}{5}x + 2$$

17) through: $(3, 5)$, slope = undefined

$$x = 3$$

18) through: $(-5, -4)$, slope = $\frac{6}{5}$

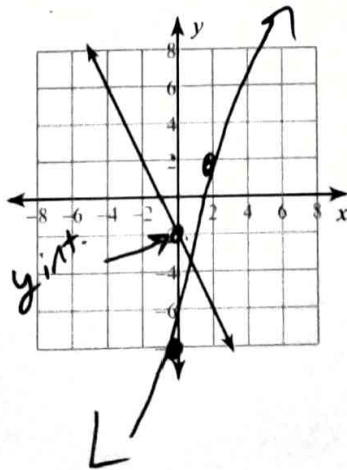
$$y = \frac{6}{5}x + 2$$

19) Which of the following has the lower y-intercept?

A) $y = 5x - 8$

B)

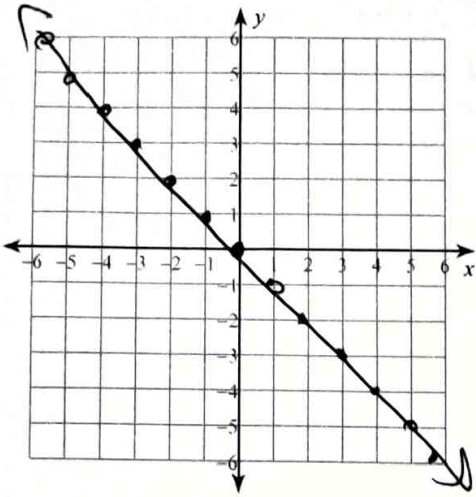
y-intercept



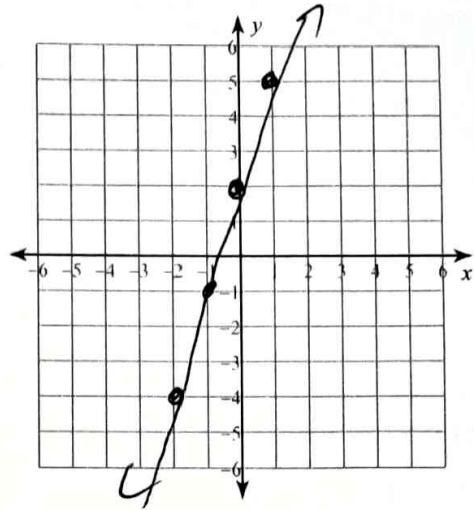
$y = 5x - 8$
would have a lower y-intercept

Sketch the graph of each line.

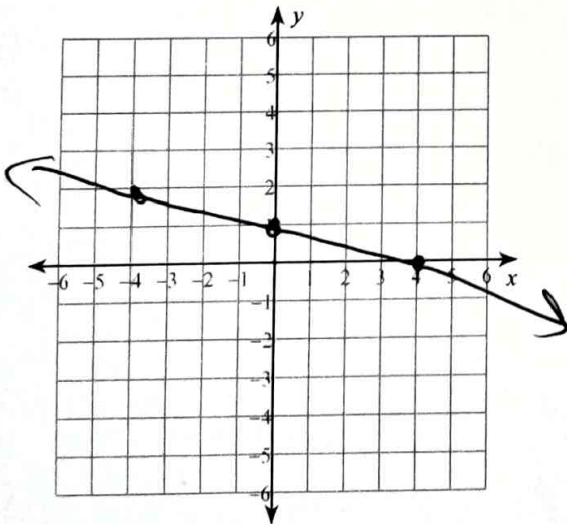
20) $y = -x$



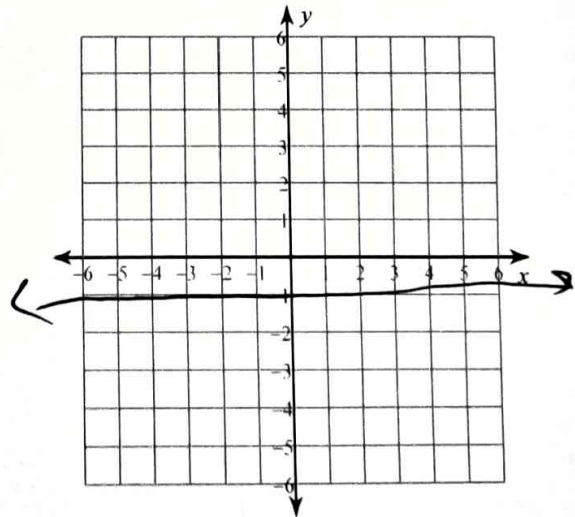
21) $y = 3x + 2$



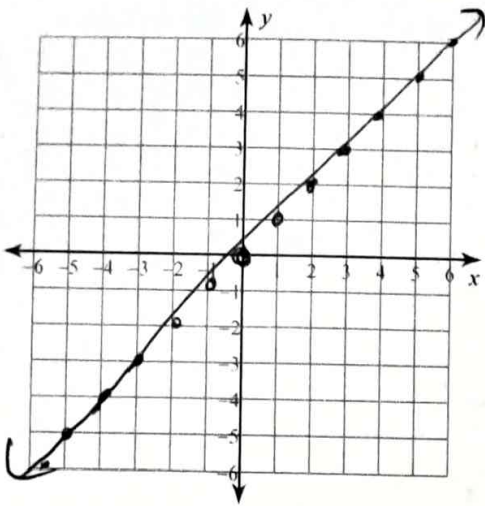
22) $y = -\frac{1}{4}x + 1$



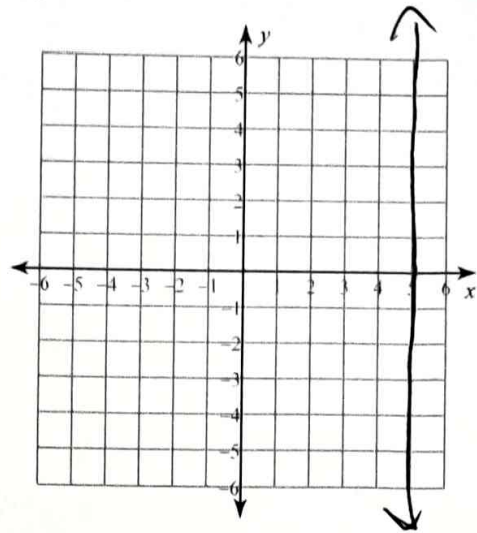
23) $y = -1$



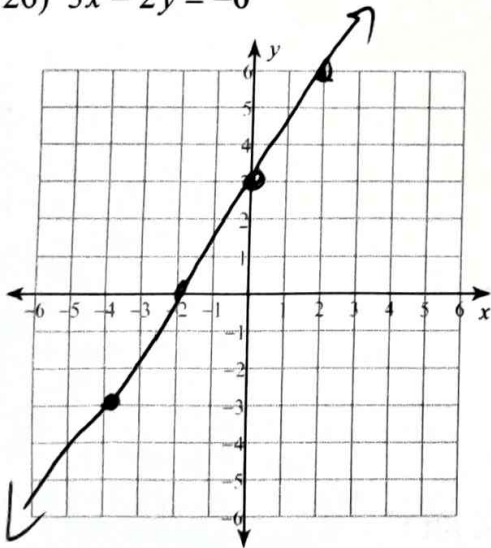
24) $y = x$



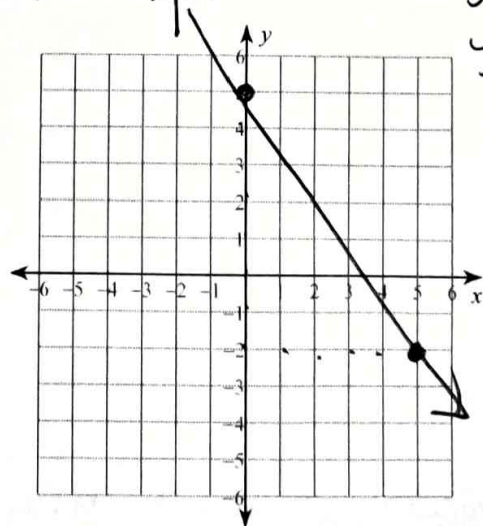
25) $x = 5$



26) $3x - 2y = -6$

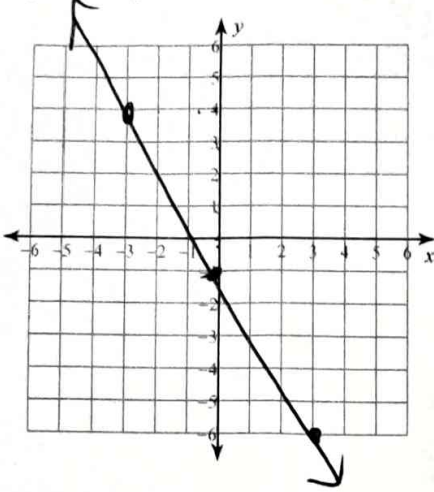


27) $7x + 5y = 25$

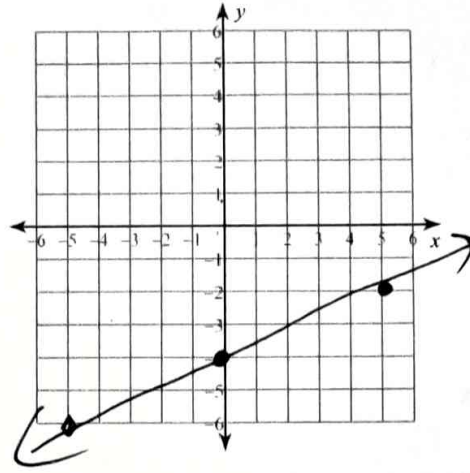


$5y = -7x + 25$
 $y = -\frac{7}{5}x + 5$

28) $5x + 3y = -3$



29) $2x - 5y = 20$



Find the slope of the line through each pair of points.

30) $(11, -11), (11, -13)$

undefined

31) $(7, 3), (0, 10)$

-1

32) $(8, 19), (-13, -9)$

$\frac{4}{3}$

33) $(-17, -3), (-14, -3)$

0

34) Lauren found the slope between the two points $(7, 9)$ and $(-4, 10)$, but she made a mistake. What did she do wrong?

$$\frac{7 - (-4)}{9 - 10} = \frac{11}{-1} = -11$$

Lauren subtracted the x's on the numerator and the y's in the denominator. The x's should be subtracted on the denominator.

35) Sammy converted the equation $6x - 7y = 14$ into slope intercept form, but he made a mistake. What was his mistake?

$$6x - 7y = 14$$

$$y = -\frac{6}{7}x + 2$$

$$\frac{7y}{7} = \frac{-6x + 14}{7}$$

Sammy forgot to bring the negative sign from the 7.

36) Katie found the slope of the two points $(9, 3)$ and $(4, 7)$, but she made mistake. What was her mistake?

$$\frac{y_2 - y_1}{x_1 - x_2} = \frac{7 - 3}{9 - 4} = \frac{4}{5}$$

She subtracted y_1 from y_2 , but then subtracted x_2 from x_1 . She did not follow the order.