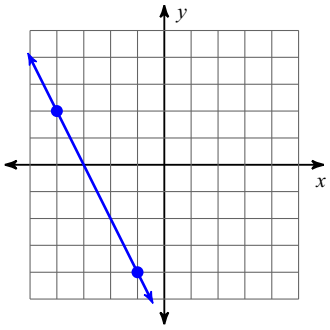
Algebra 1 - Mr. Allen-Black Name_____

Linear Equations Test Review

Date_____ Period____

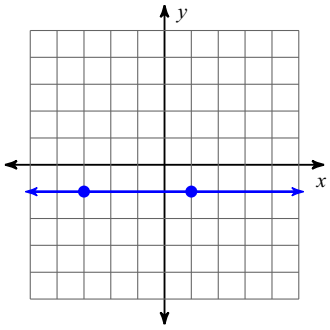
Find the slope of each line.

1)



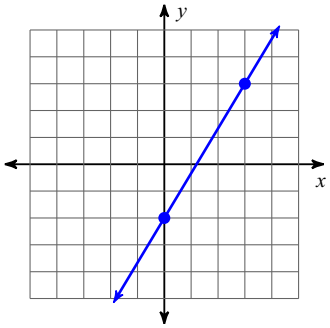
-2

2)



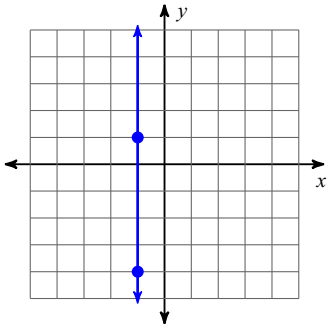
0

3)



$\frac{5}{3}$

4)



Undefined

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

5) $(12, -5), (20, 11)$

2

6) $(-1, -7), (18, -7)$

0

7) $(-13, -1), (-13, -19)$

Undefined

8) $(5, 2), (14, -3)$

$-\frac{5}{9}$

Find the slope of each line.

9) $y = \frac{9}{2}x - 5$

$\frac{9}{2}$

10) $y = 2x - 5$

2

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

11) Slope = –1, y-intercept = –3

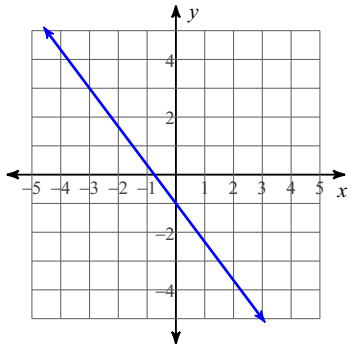
$y = -x - 3$

12) y-intercept = 4, Slope = $\frac{8}{5}$

$y = \frac{8}{5}x + 4$

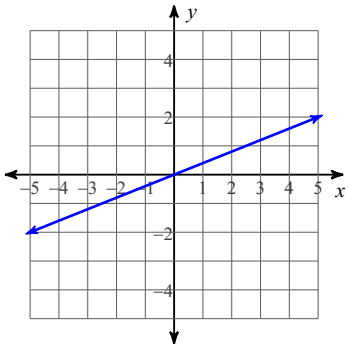
Write the slope-intercept form of the equation of each line.

13)



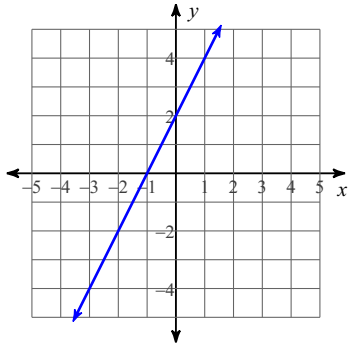
$y = -\frac{4}{3}x - 1$

14)



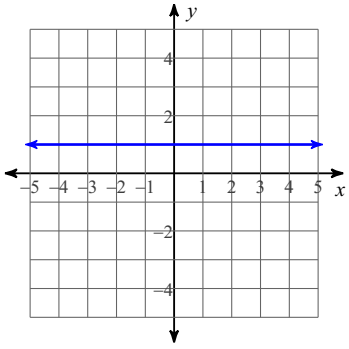
$y = \frac{2}{5}x$

15)



$y = 2x + 2$

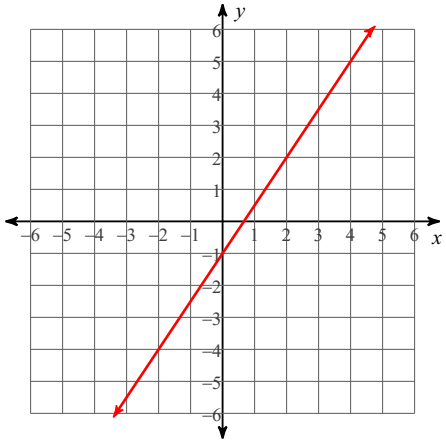
16)



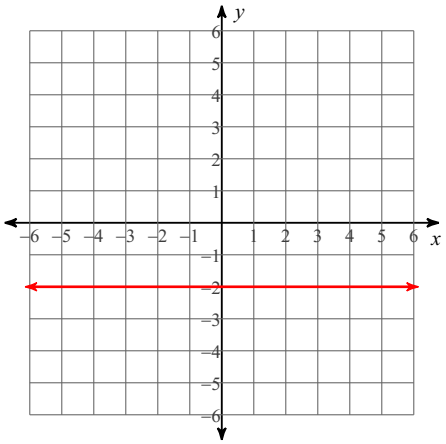
$y = 1$

Sketch the graph of each line.

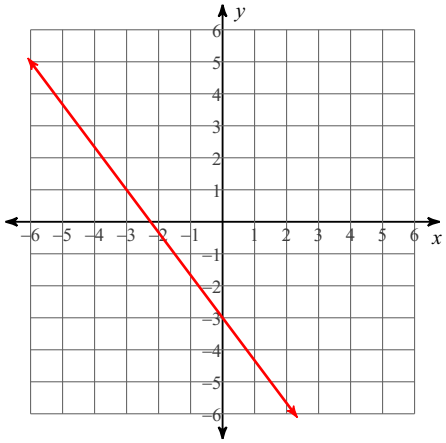
17) $y = \frac{3}{2}x - 1$



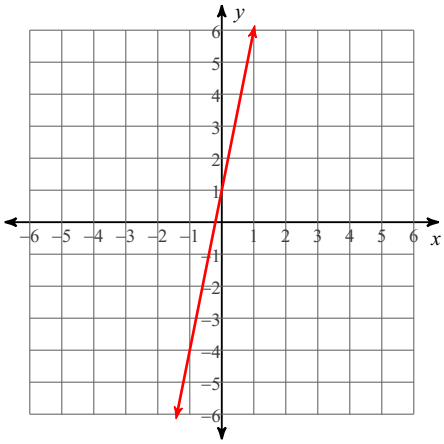
18) $y = -2$



19) $y = -\frac{4}{3}x - 3$



20) $y = 5x + 1$



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

21) through: $(1, 1)$, slope = -3

$y - 1 = -3(x - 1)$

22) through: $(-4, -2)$, slope = $\frac{5}{4}$

$y + 2 = \frac{5}{4}(x + 4)$

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

23) through: $(0, -1)$ and $(2, -2)$

$y + 1 = -\frac{1}{2}x$

24) through: $(-1, -4)$ and $(3, 5)$

$y + 4 = \frac{9}{4}(x + 1)$

25) through: $(0, 4)$ and $(-4, -3)$

$y - 4 = \frac{7}{4}x$

26) through: $(5, -2)$ and $(1, 1)$

$y + 2 = -\frac{3}{4}(x - 5)$

Write the slope-intercept form of the equation of the line through the given point with the given slope. (HINT: Write the equation in Point-slope form, then convert it into Slope-intercept form.)

27) through: $(-3, -5)$, slope = 1

$y = x - 2$

28) through: $(3, 5)$, slope = 3

$y = 3x - 4$

29) through: $(-2, 2)$, slope = $-\frac{5}{2}$

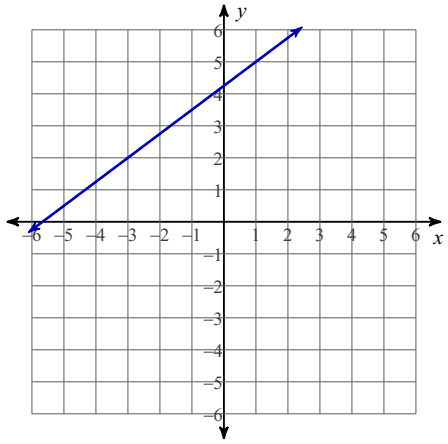
$y = -\frac{5}{2}x - 3$

30) through: $(-1, -4)$, slope = 2

$y = 2x - 2$

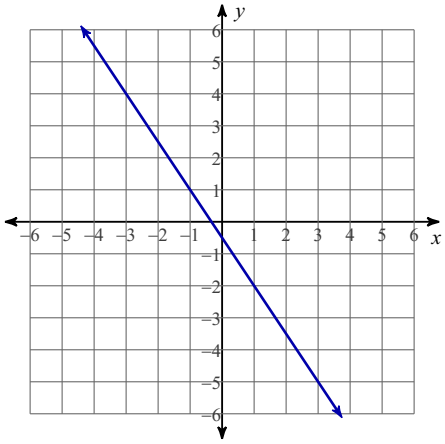
Write the equation of the line in Point-slope form.

31)



$y - 2 = \frac{3}{4}(x + 3)$

32)



$y + 2 = -\frac{3}{2}(x - 1)$

Write the point-slope form of the equation of the line described.

33) through: $(5, -1)$, parallel to $y = -\frac{3}{8}x + 5$

$y + 1 = -\frac{3}{8}(x - 5)$

34) through: $(-1, 3)$, parallel to $y = -7x - 2$

$y - 3 = -7(x + 1)$

35) through: $(-2, 2)$, perpendicular to $y = x + 2$

$y - 2 = -(x + 2)$

36) through: $(2, -4)$, perpendicular to $y = \frac{1}{3}x - 5$

$y + 4 = -3(x - 2)$

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

37) through: $(1, -3)$, parallel to $y = -6x - 1$

$y = -6x + 3$

38) through: $(1, -4)$, parallel to $y = -9x + 2$

$y = -9x + 5$

39) through: $(2, -4)$, perpendicular to $y = \frac{1}{2}x$

$y = -2x$

40) through: $(4, 1)$, perpendicular to $y = 4x$

$y = -\frac{1}{4}x + 2$