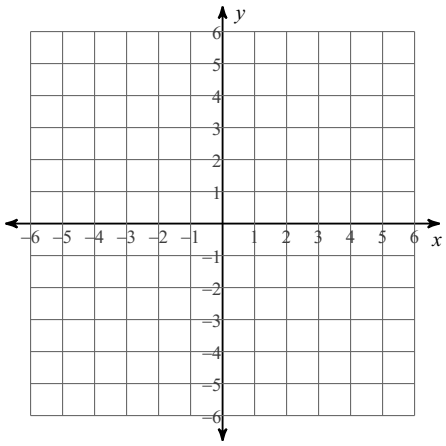
Algebra II Honors - Mr. Allen-Black Name_____

Basics of Linear Functions

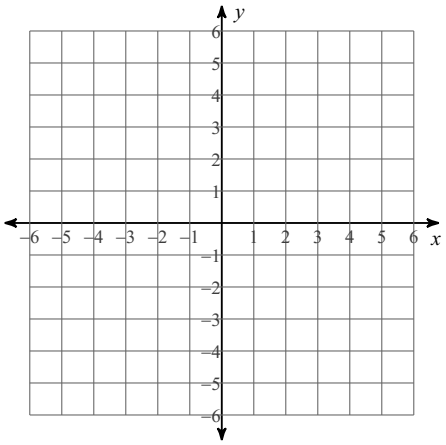
Date_____ Period____

Sketch the graph of each line.

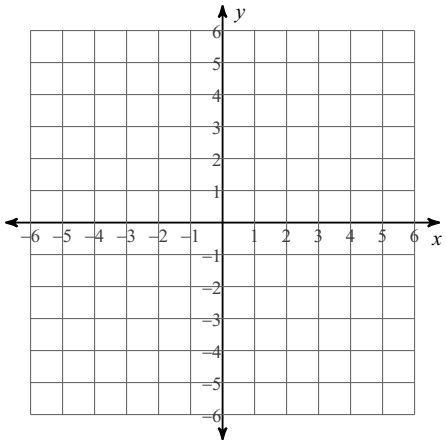
1) $y = \frac{5}{4}x - 5$



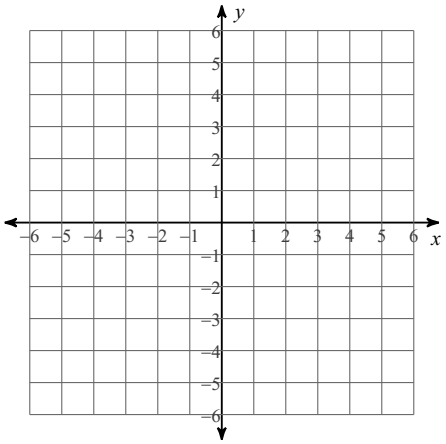
2) $y = -4x + 2$



3) $x + 5y = 20$

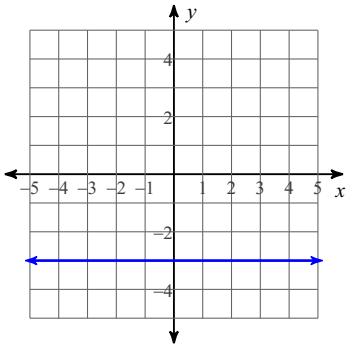


4) $2x - 3y = 6$

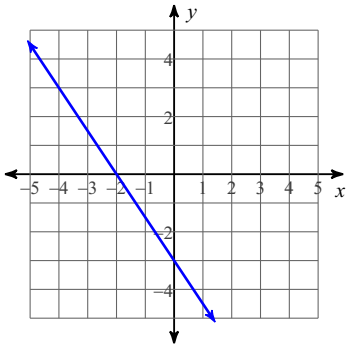


Write the slope-intercept form of the equation of each line.

5)



6)



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

7) Slope = 1, y-intercept = –2

8) Slope = 5, y-intercept = 4

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

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

10) through: $(-2, -1)$, slope = 2

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

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

12) through: $(-2, -5)$, slope = 5

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

13) through: $(2, 1)$ and $(5, 4)$

14) through: $(-1, 1)$ and $(-5, 0)$

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

15) through: $(3, -2)$ and $(-3, 2)$

16) through: $(-5, -3)$ and $(-3, 1)$

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

17) through: $(2, -4)$, parallel to $y = -\frac{1}{2}x + 5$

18) through: $(-2, 3)$, perp. to $y = \frac{3}{2}x + 4$

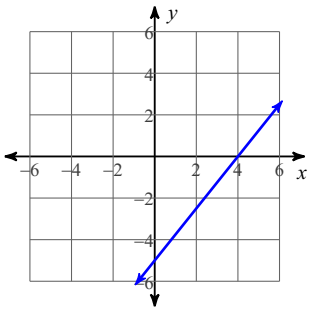
Write the slope-intercept form of the equation of the line described.

19) through: $(1, -3)$, parallel to $y = -8x + 3$

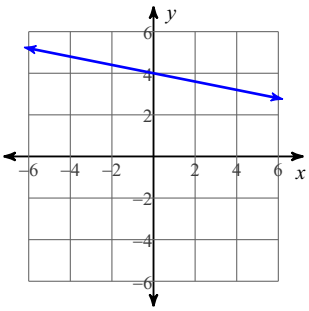
20) through: $(-5, 4)$, perp. to $y = -5x + 4$

Answers to Basics of Linear Functions

1)



3)



5) $y = -3$

7) $y = x - 2$

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

11) $y = 3x - 2$

13) $y - 1 = x - 2$

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

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

19) $y = -8x + 5$