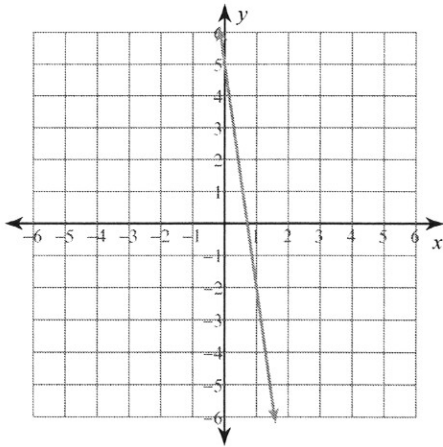


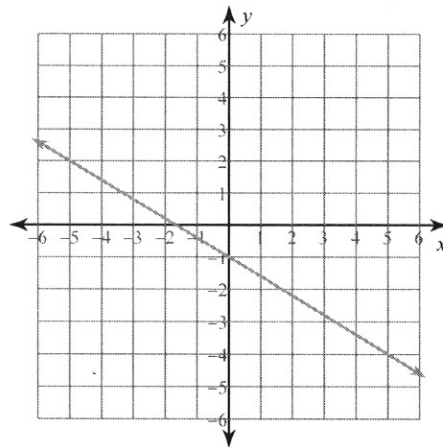
Graphing Lines

Sketch the graph of each line.

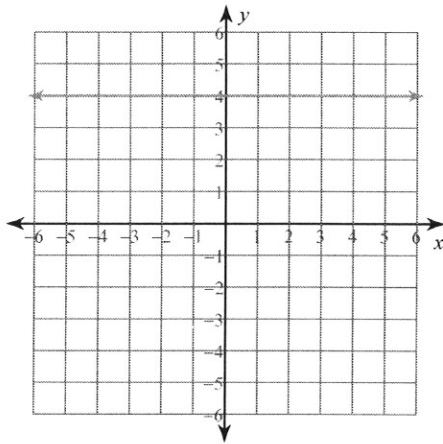
1) $7x + y = 5$



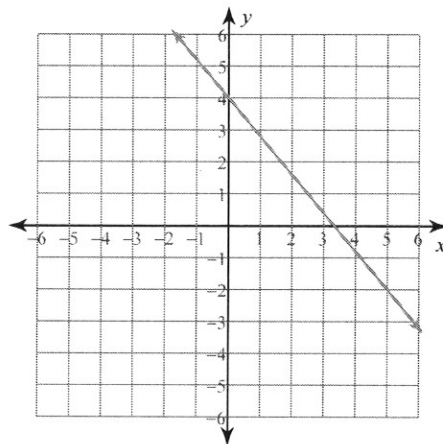
2) $3x + 5y = -5$



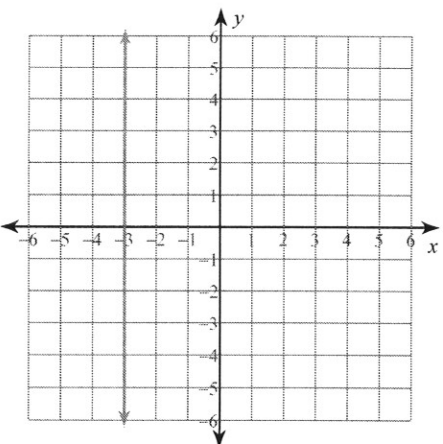
3) $y = 4$



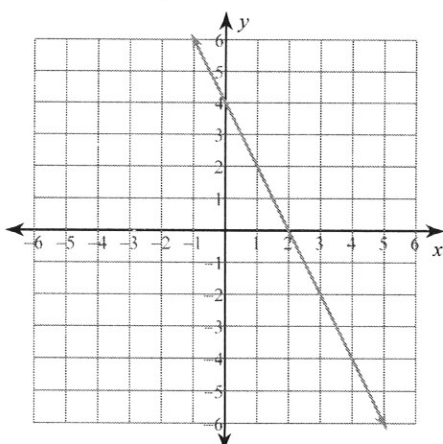
4) $6x + 5y = 20$



5) $x = -3$



6) $2x + y = 4$



Writing Linear Equations

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

1) $3x - 2y = -16$

$$y = \frac{3}{2}x + 8$$

2) $13x - 11y = -12$

$$y = \frac{13}{11}x + \frac{12}{11}$$

3) $9x - 7y = -7$

$$y = \frac{9}{7}x + 1$$

4) $x - 3y = 6$

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

5) $6x + 5y = -15$

$$y = -\frac{6}{5}x - 3$$

6) $4x - y = 1$

$$y = 4x - 1$$

7) $11x - 4y = 32$

$$y = \frac{11}{4}x - 8$$

8) $11x - 8y = -48$

$$y = \frac{11}{8}x + 6$$

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

9) through: $(1, 2)$, slope = 7

$$7x - y = 5$$

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

$$x + y = 2$$

11) through: $(-2, 5)$, slope = -4

$$4x + y = -3$$

12) through: $(3, 5)$, slope = $\frac{5}{3}$

$$5x - 3y = 0$$

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

$$x + y = -2$$

14) through: $(2, 5)$, slope = undefined

$$x = 2$$

15) through: $(3, 1)$, slope = $\frac{1}{2}$

$$x - 2y = 1$$

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

$$2x - y = -4$$

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

17) through: $(4, 2)$, parallel to $y = -\frac{3}{4}x - 5$

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

18) through: $(-3, -3)$, parallel to $y = \frac{7}{3}x + 3$

$$y + 3 = \frac{7}{3}(x + 3)$$

19) through: $(-4, 0)$, parallel to $y = \frac{3}{4}x - 2$

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

20) through: $(-1, 4)$, parallel to $y = -5x + 2$

$$y - 4 = -5(x + 1)$$

21) through: $(2, 0)$, parallel to $y = \frac{1}{3}x + 3$

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

22) through: $(4, -4)$, parallel to $y = -x - 4$

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

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

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

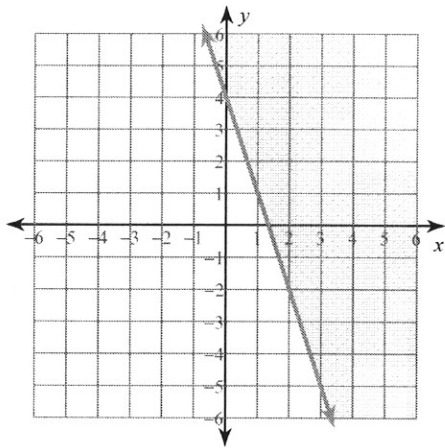
24) through: $(-4, -1)$, parallel to $y = -\frac{1}{2}x - 1$

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

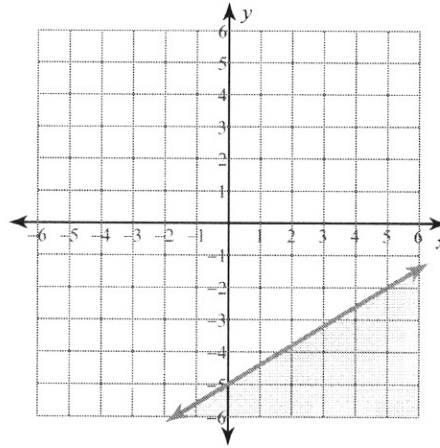
Graphing Linear Inequalities

Sketch the graph of each linear inequality.

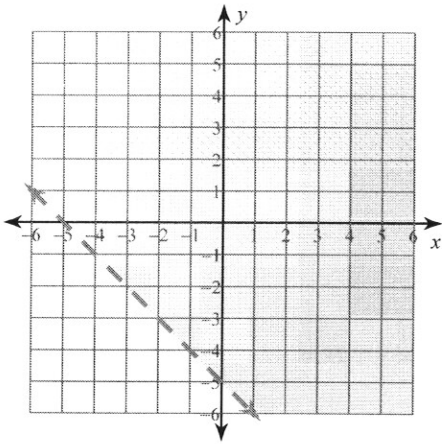
1) $y \geq -3x + 4$



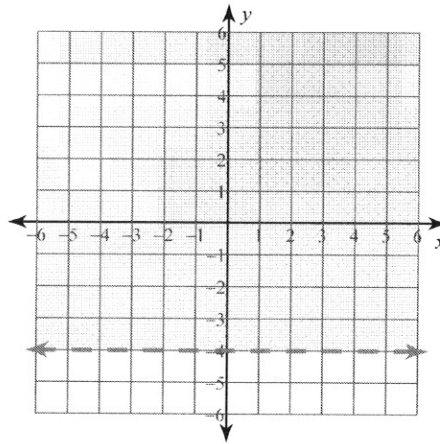
2) $y \leq \frac{3}{5}x - 5$



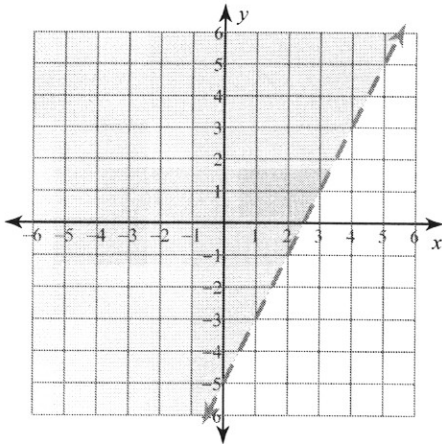
3) $y > -x - 5$



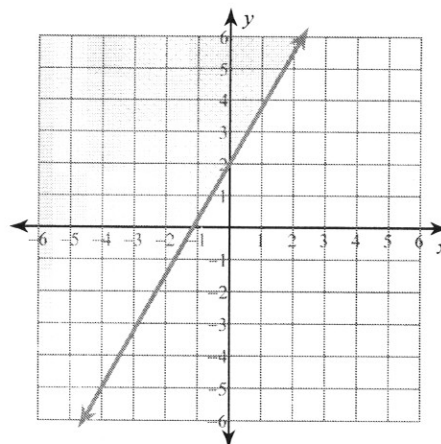
4) $y > -4$



5) $y > 2x - 5$



6) $y \geq \frac{7}{4}x + 2$



Name : _____

Score : _____

Teacher : _____

Date : _____

Find the Slope from the Pair of Points

1) (3,-5) (-2,5)

slope = $\frac{-2}{1}$

B = 1

y = -2x + 1

2) (-4,-5) (-3,5)

x_1, y_1, x_2, y_2

slope = $\frac{10}{1}$

B = 35

y = 10x + 35

m = $\frac{-5 - 5}{-4 - (-3)} = \frac{-10}{-1} = 10$

-5 = 10(-4) + B

-5 = -40 + B

B = 35

3) (2,-5) (4,5)

x_1, y_1, x_2, y_2

slope = $\frac{5}{2}$

B = -15

y = 5x - 15

m = $\frac{-5 - 5}{2 - 4} = \frac{-10}{-2} = 5$

-5 = 5(2) + B

B = -15

4) (1,-1) (3,-2)

x_1, y_1, x_2, y_2

slope = $-\frac{1}{2}$

B = $-\frac{1}{2}$

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

m = $\frac{-1 - (-2)}{1 - 3} = \frac{-1}{-2} = \frac{1}{2}$

-1 = $-\frac{1}{2}(1) + b$

$-\frac{1}{2} = b$

5) (-5,2) (5,-3)

x_1, y_1, x_2, y_2

slope = $-\frac{1}{2}$

B = $\frac{9}{2}$

y = $-\frac{1}{2}x + \frac{9}{2}$

m = $\frac{2 - (-3)}{-5 - 5} = \frac{5}{-10} = -\frac{1}{2}$

2 = $-\frac{1}{2}(-5) + b$

2 = $-\frac{5}{2} + b$

$\frac{4}{2} + \frac{5}{2} = \frac{9}{2}$

7) (0,0) (5,-3)

x_1, y_1, x_2, y_2

slope = $-\frac{3}{5}$

B = 0

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

m = $\frac{0 - (-3)}{0 - 5} = \frac{3}{-5} = -\frac{3}{5}$

0 = $(-\frac{3}{5})(0) + b$

9) (-1,5) (-5,1)

x_1, y_1, x_2, y_2

slope = $\frac{1}{4}$

B = 6

y = x + 6

m = $\frac{5 - 1}{-1 - (-5)} = \frac{4}{4} = 1$

5 = 1(-1) + b

b = 6

10) (-5,-5) (1,0)

x_1, y_1, x_2, y_2

slope = $\frac{5}{6}$

B = $-\frac{5}{6}$

y = $\frac{5}{6}x - \frac{5}{6}$

m = $\frac{-5 - 0}{-5 - 1} = \frac{-5}{-6} = \frac{5}{6}$

0 = $\frac{5}{6}(1) + B$

B = $-\frac{5}{6}$

