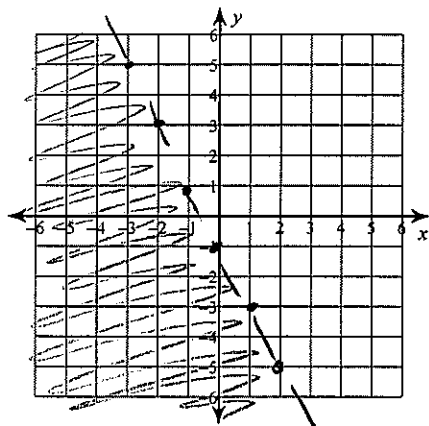


Homework 13.3

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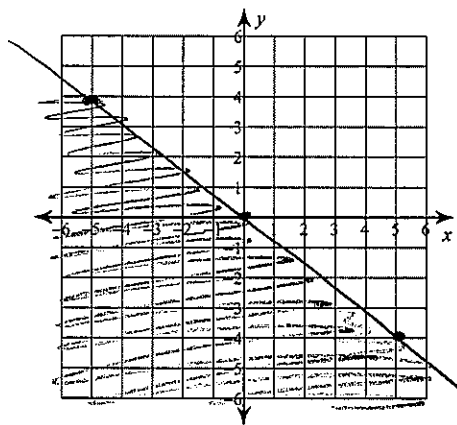
Sketch the graph of each linear inequality.

1) $y < -2x - 1$



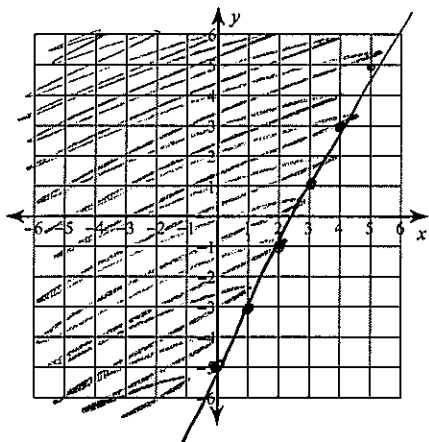
$m = -2$
 $b = -1$
 dashed
 below

2) $y \leq -\frac{4}{5}x$



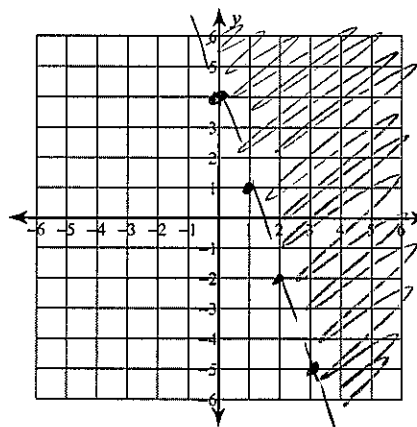
$m = -\frac{4}{5}$
 $b = 0$
 solid
 below

3) $y \geq 2x - 5$



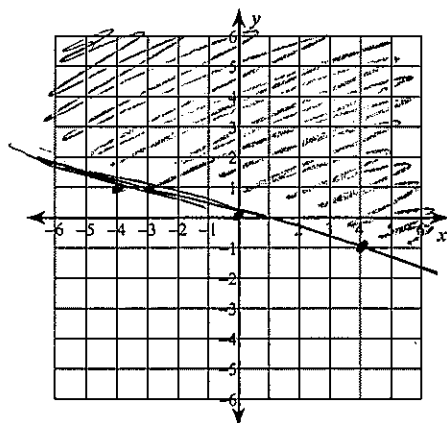
$m = 2$
 $b = -5$
 solid
 above

4) $y > -3x + 4$



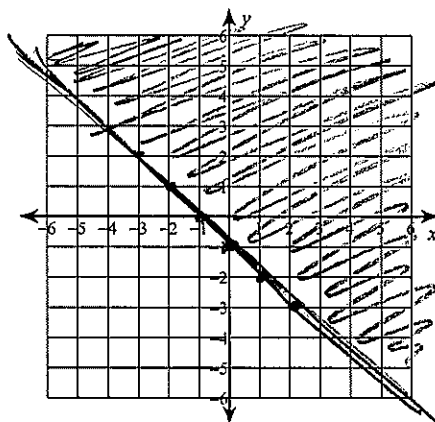
$m = -3$
 $b = 4$
 dashed
 above

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



$m = -\frac{1}{4}$
 $b = 0$
 solid
 above

$$6) y \geq -x - 1$$



$m = -1$
 $b = -1$
 solid
 above

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

$$7) \text{ through: } (3, 5), \text{ slope} = \frac{10}{3}$$

$$y - y_1 = m(x - x_1)$$

$$y - 5 = \frac{10}{3}(x - 3)$$

$$3(y - 5) = 10(x - 3)$$

$$3y - 15 = 10x - 30$$

$$\begin{array}{r} +15 \qquad +15 \\ \hline \end{array}$$

$$\frac{3y}{3} = \frac{10x}{3} - \frac{15}{3}$$

$$y = \frac{10}{3}x - 5$$

$$8) \text{ through: } (-1, 0), \text{ slope} = 4$$

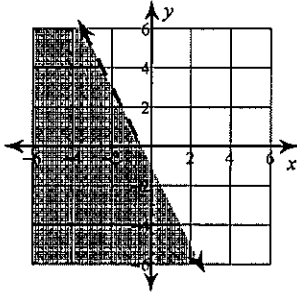
$$y - y_1 = m(x - x_1)$$

$$y - 0 = 4(x + 1)$$

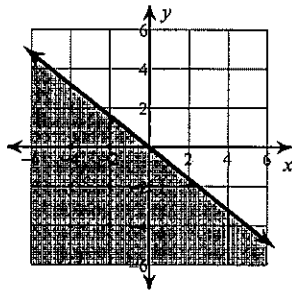
$$y = 4x + 4$$

Answers to Homework 13.3 (ID: 1)

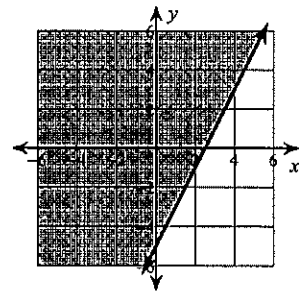
1)



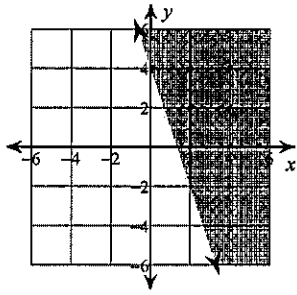
2)



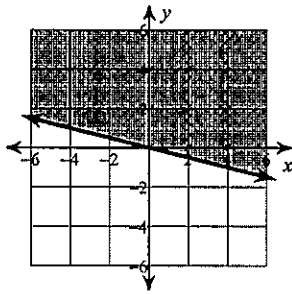
3)



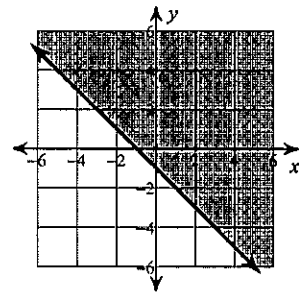
4)



5)



6)



7) $y = \frac{10}{3}x - 5$

8) $y = 4x + 4$