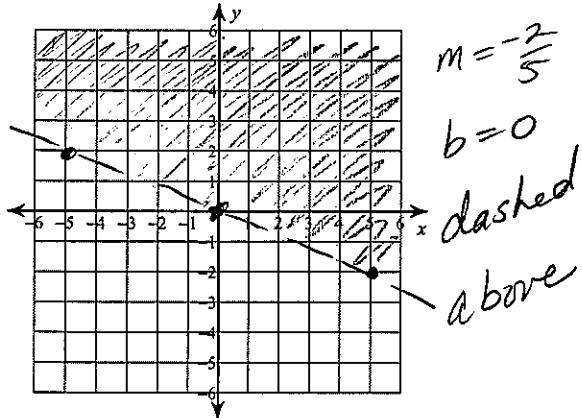


## Homework 13.1

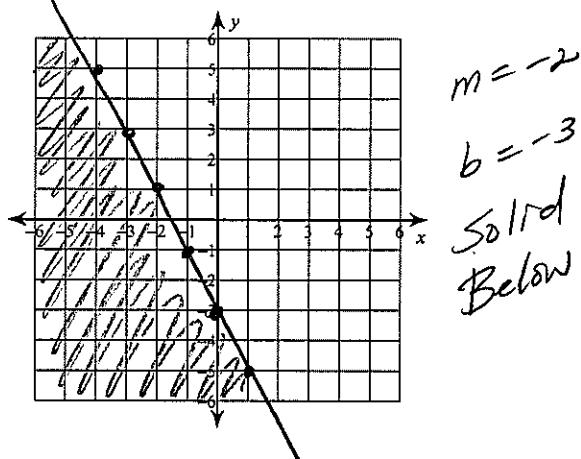
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Sketch the graph of each linear inequality.

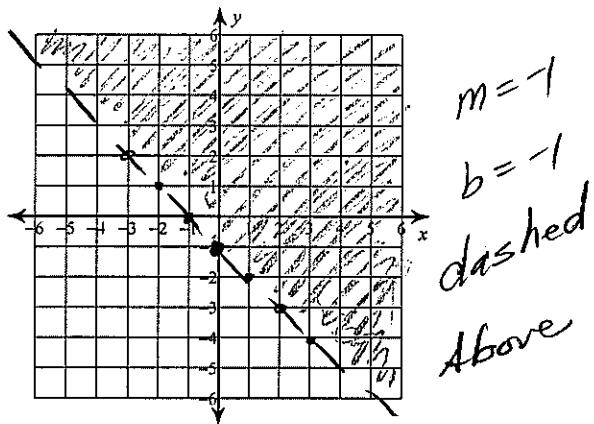
1)  $y > -\frac{2}{5}x$



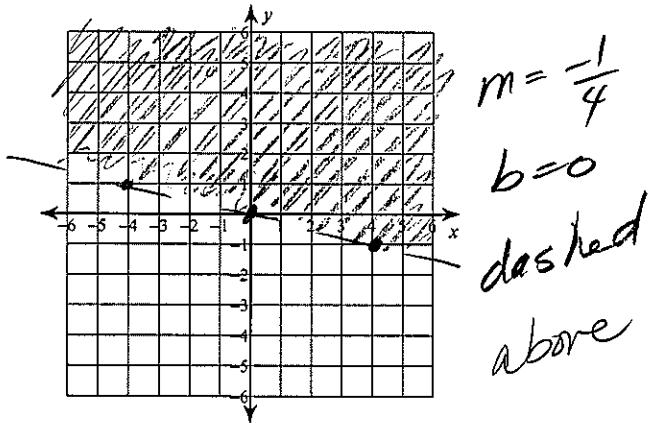
2)  $y \leq -2x - 3$



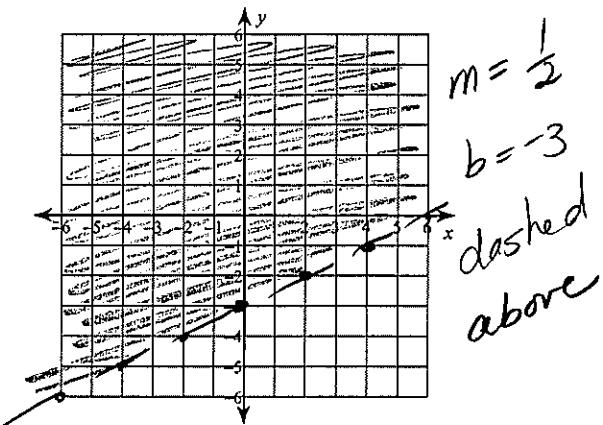
3)  $y > -x - 1$



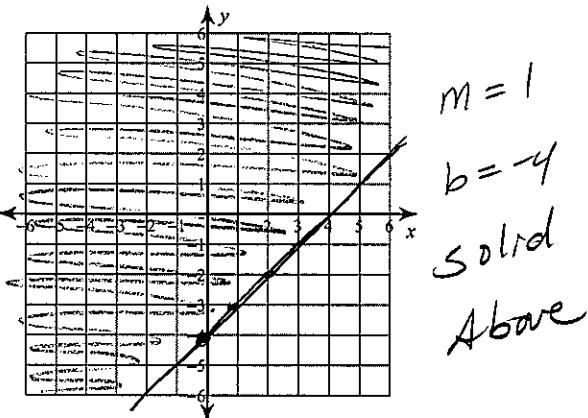
4)  $y > -\frac{1}{4}x$



5)  $y > \frac{1}{2}x - 3$



6)  $y \geq x - 4$



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

7) through:  $(-4, -3)$ , slope  $= \frac{3}{2}$

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

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

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

$$\begin{array}{rcl} 2y + 6 & = & 3x + 12 \\ -6 & & -6 \end{array}$$

$$\frac{2y}{2} = \frac{3x}{2} + \frac{6}{2}$$

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

8) through:  $(3, -2)$ , slope  $= -\frac{5}{2}$

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

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

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

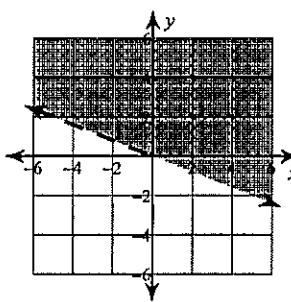
$$\begin{array}{rcl} 2y + 4 & = & -5x + 15 \\ -4 & & -4 \end{array}$$

$$\frac{2y}{2} = \frac{-5x + 11}{2}$$

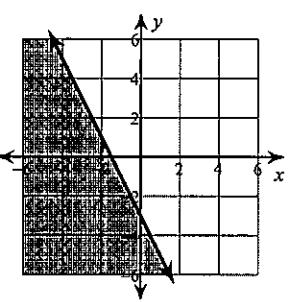
$$y = -\frac{5}{2}x + \frac{11}{2}$$

# Answers to Homework 13.1 (ID: 1)

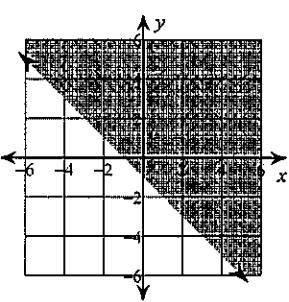
1)



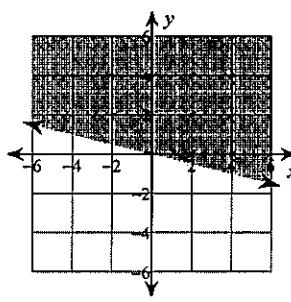
2)



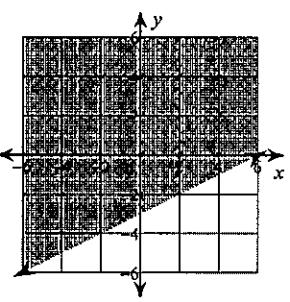
3)



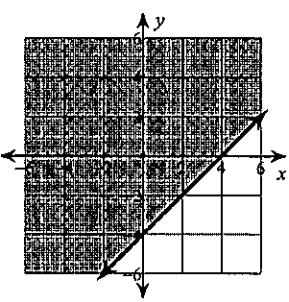
4)



5)



6)



7)  $y = \frac{3}{2}x + 3$

8)  $y = -\frac{5}{2}x + \frac{11}{2}$