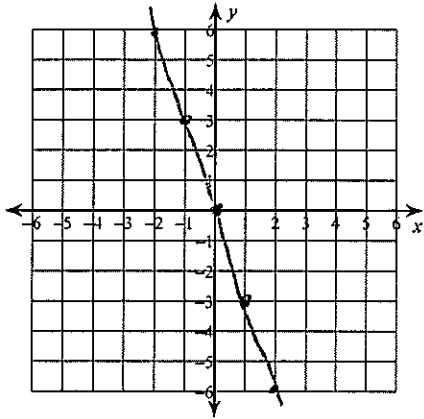


Homework 9.3

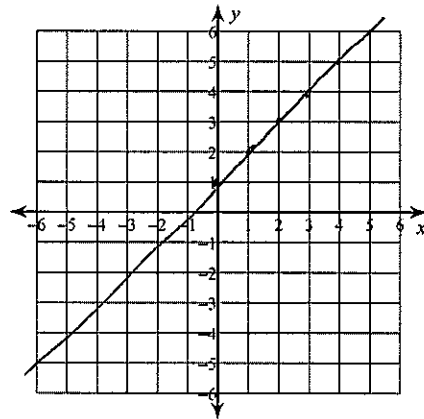
Sketch the graph of each line.

1) $y = -3x$



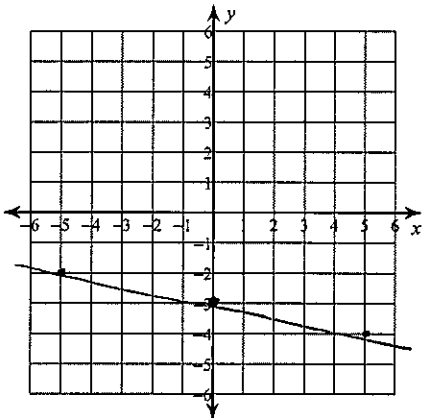
$m = -3$
 $b = 0$

2) $y = x + 1$



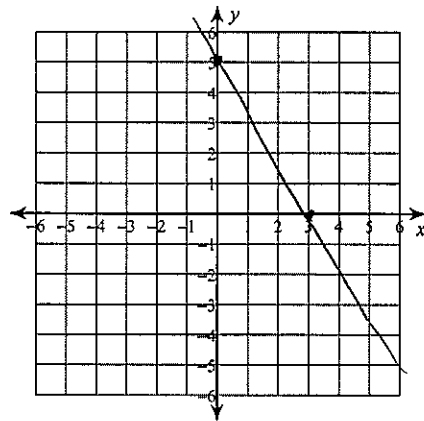
$m = 1$
 $b = 1$

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



$m = -\frac{1}{5}$
 $b = -3$

4) $5x + 3y = 15$

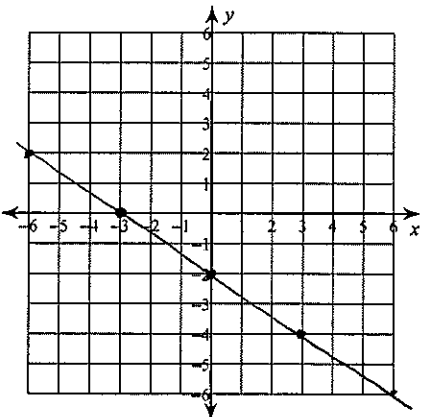


X	Y
0	5
3	0

$5(0) + 3y = 15$
 $\frac{3y}{3} = \frac{15}{3}$
 $y = 5$

$5x + 3(0) = 15$
 $\frac{5x}{5} = \frac{15}{5}$
 $x = 3$

5) $2x + 3y = -6$

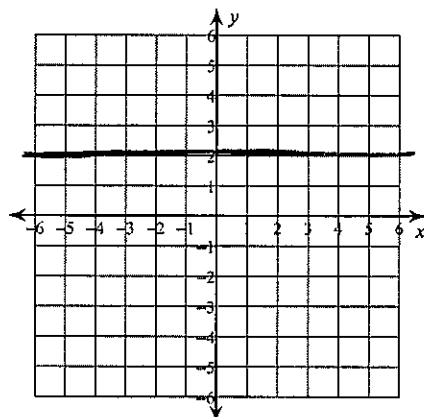


X	Y
0	-2
-3	0

$2(0) + 3y = -6$
 $\frac{3y}{3} = \frac{-6}{3}$
 $y = -2$

$2x + 3(0) = -6$
 $\frac{2x}{2} = \frac{-6}{2}$
 $x = -3$

6) $y = 2$



Horizontal
line

Solve each inequality.

7) $5(2n + 5) < 37 + 4n$

$$\begin{array}{r} 10n + 25 < 37 + 4n \\ -4n \quad -4n \\ \hline 6n + 25 < 37 \\ -25 \quad -25 \\ \hline 6n < 12 \\ \hline n < 2 \end{array}$$

Solve each compound inequality.

9) $15 \leq 10p - 5 < 65$

$$\begin{array}{r} 15 \leq 10p - 5 \\ +5 \quad +5 \\ \hline 20 \leq 10p \\ \frac{20}{10} \leq \frac{10p}{10} \\ 2 \leq p \end{array}$$
$$\begin{array}{r} 10p - 5 < 65 \\ +5 \quad +5 \\ \hline 10p < 70 \\ \frac{10p}{10} < \frac{70}{10} \\ p < 7 \end{array}$$

$2 \leq p < 7$

8) $-8(x + 4) \leq -25 - x$

$$\begin{array}{r} -8x - 32 \leq -25 - x \\ +8x \quad +8x \\ \hline -32 \leq -25 + 7x \\ +25 \quad +25 \\ \hline -7 \leq 7x \\ \frac{-7}{7} \leq \frac{7x}{7} \\ -1 \leq x \quad \text{or } x \geq -1 \end{array}$$

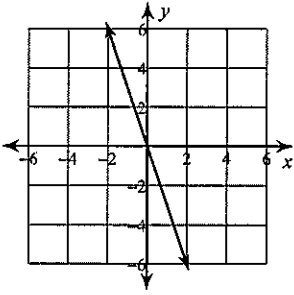
10) $-45 \leq 6k + 3 < -21$

$$\begin{array}{r} -45 \leq 6k + 3 \\ -3 \quad -3 \\ \hline -48 \leq 6k \\ \frac{-48}{6} \leq \frac{6k}{6} \\ -8 \leq k \end{array}$$
$$\begin{array}{r} 6k + 3 < -21 \\ -3 \quad -3 \\ \hline 6k < -24 \\ \frac{6k}{6} < \frac{-24}{6} \\ k < -4 \end{array}$$

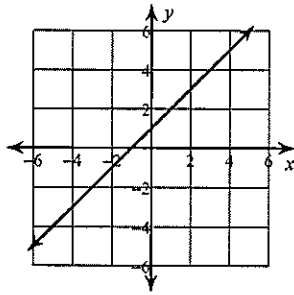
$-8 \leq k < -4$

Answers to Homework 9.3

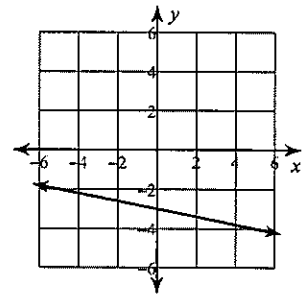
1)



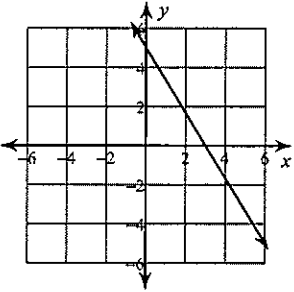
2)



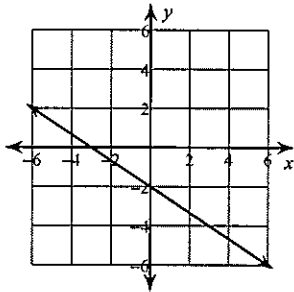
3)



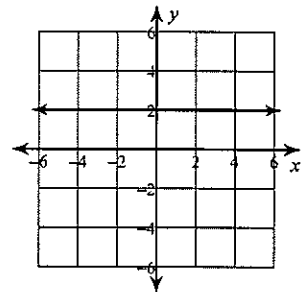
4)



5)



6)



7) $n < 2$

8) $x \geq -1$

9) $2 \leq p < 7$

10) $-8 \leq k < -4$