

## 5.5 – Graphing Lines Using Slope and Y-Intercept

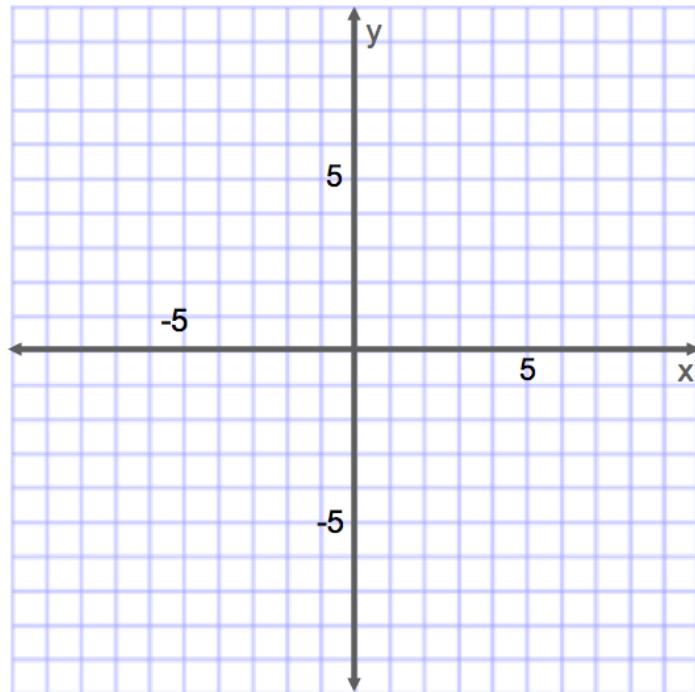
Using the phrase “The intercept shows you where to start and the slope shows you where to go” graph the following.

**Class Notes – 1)** Use the given information to graph a line. **2)** State an equation for the line and label it on the graph.

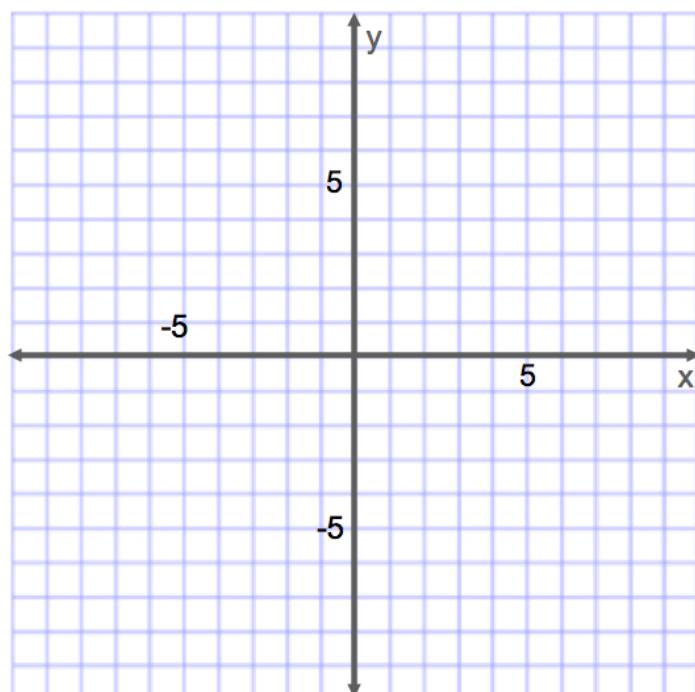
<b>LP#1</b>  $m = 4$ $b = -7$	
<b>LP#2</b>  $m = 2$ $b = 5$	

**LP#3**

Slope =  $-1/2$   
y-intercept =  $-1$

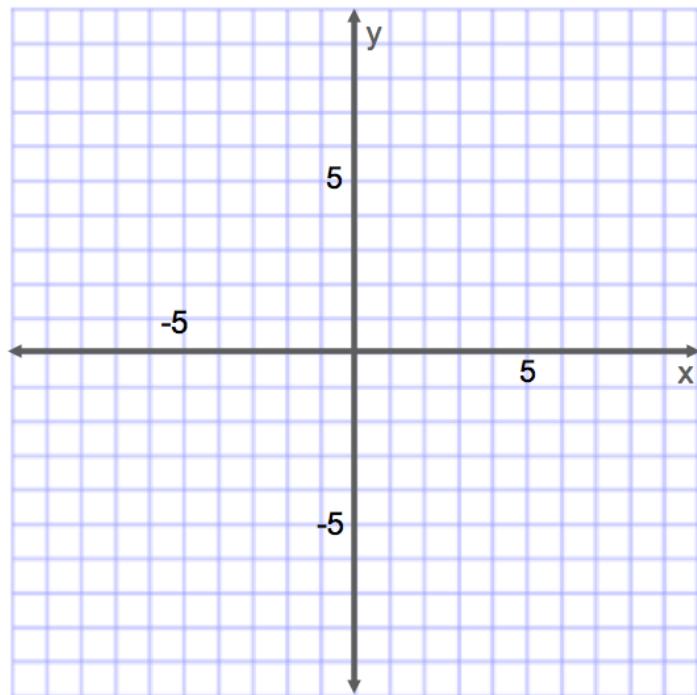
**LP#4**

Slope =  $-3/4$   
y-intercept =  $6$



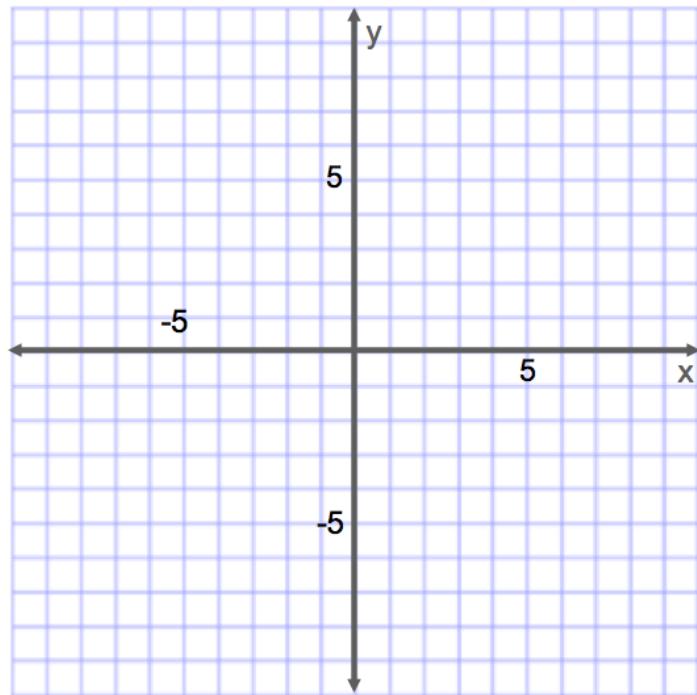
**LP#5**

Slope = -3  
(0,8)



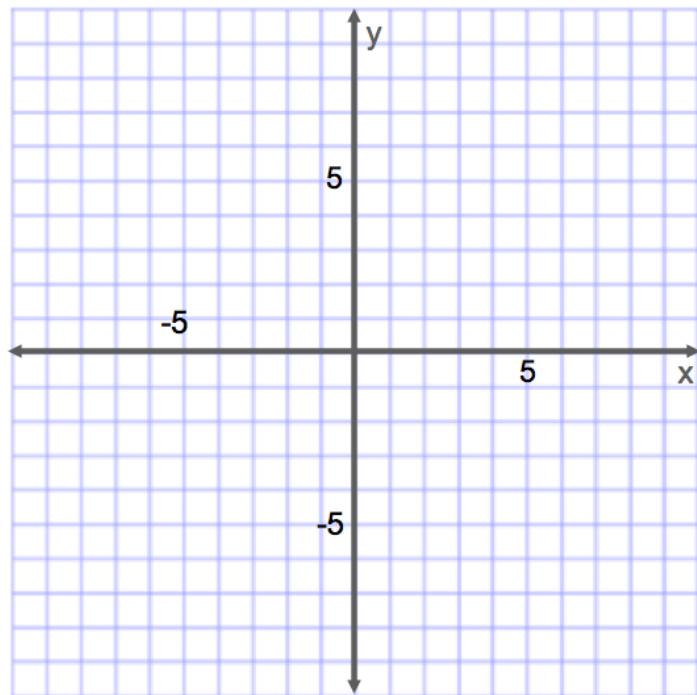
**LP#6**

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



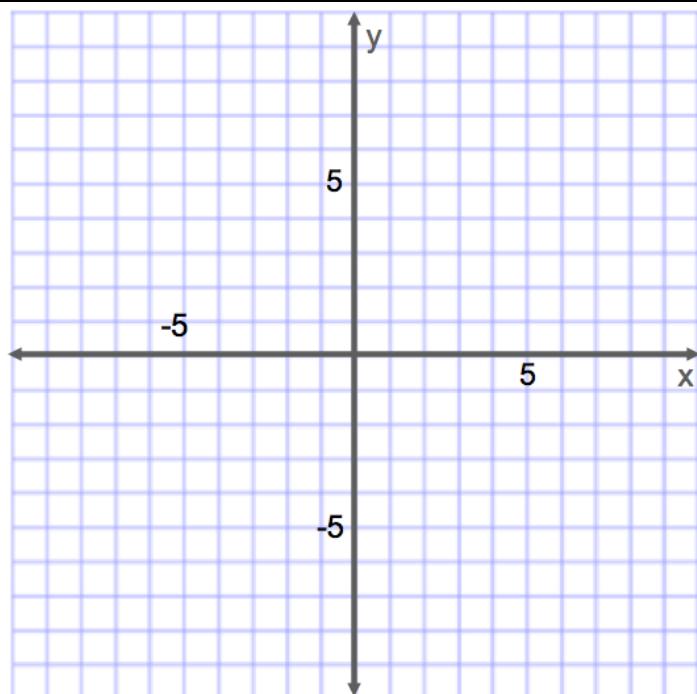
**LP#7**

$$y = -4x + 9$$



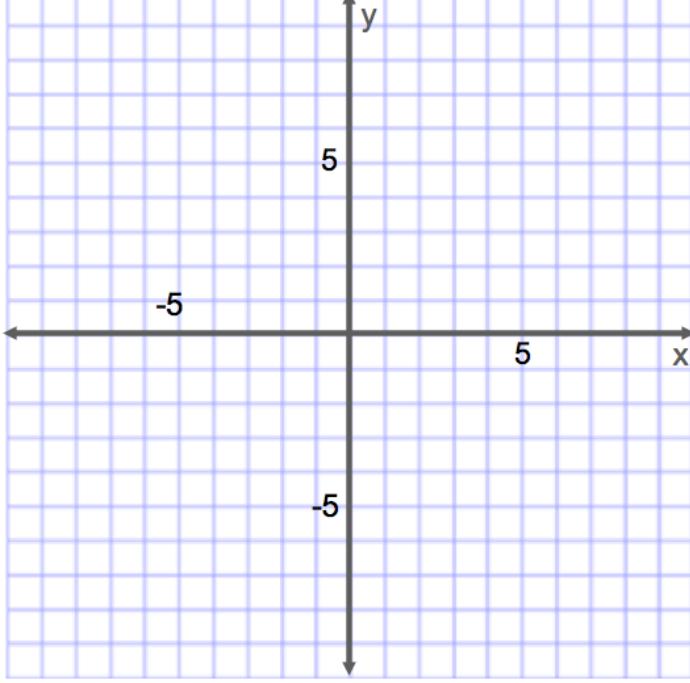
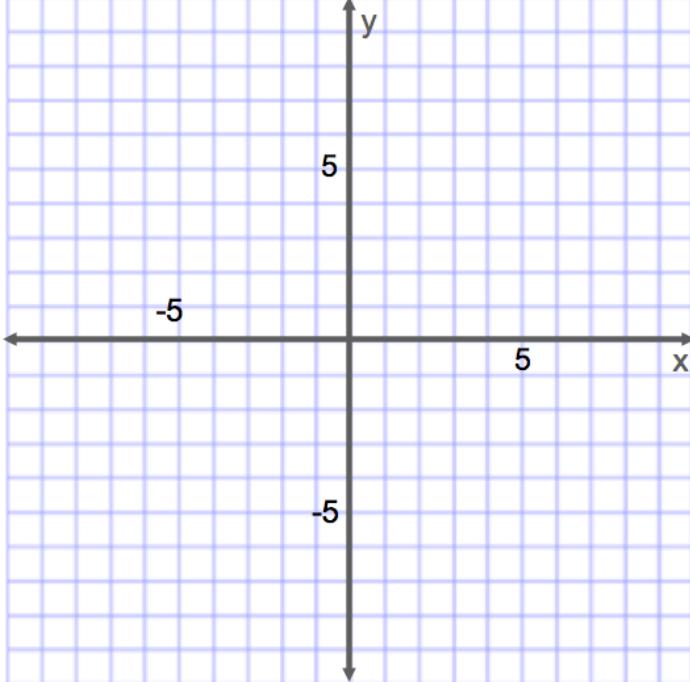
**LP#8**

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



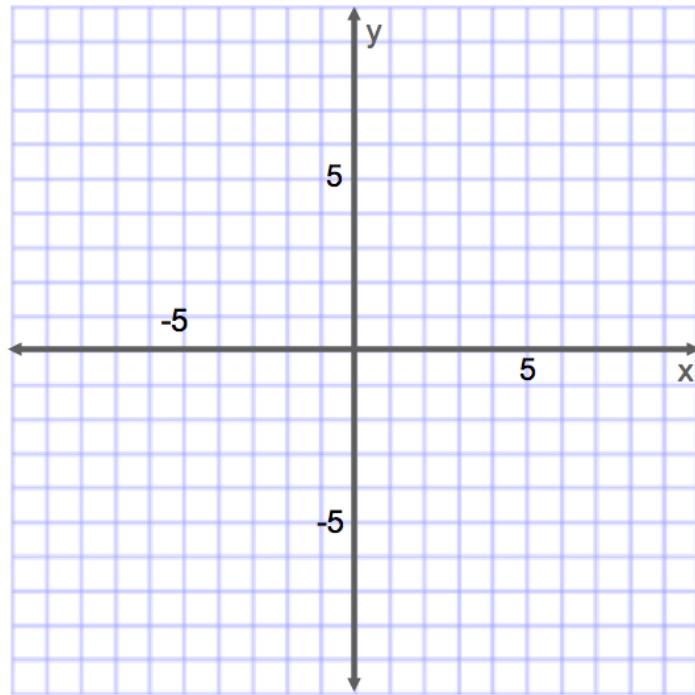
Using the phrase “The intercept shows you where to start and the slope shows you where to go” graph the following.

**Review – 1)** Use the given information to graph a line. **2)** State an equation for the line and label it on the graph.

<b>R#1</b> $m = 3$ $b = -6$	
<b>R#2</b>  Slope = $-2/5$ y-intercept = 1	

**R#3**

$$y = \frac{3}{2}x - 7$$



### Homework

On a piece of graph paper, graph each line using the information given. Label each line with its equation.

1)  $m = -2$   
 $b = 3$

2)  $m = 3/2$   
 $b = -4$

3)  $m = 1/3$   
 $b = 5$

4)  $m = -1$   
 $b = -5$

5)  $m = 2$   
 $b = -8$

6)  $m = 0.25$   
 $b = -3$

7)  $m = -5/4$   
 $b = 9$

8)  $m = 1$   
 $b = 0$

9) Slope =  $1/2$   
y-intercept = -3

10) Slope = 5  
y-intercept = -9

11) Slope =  $-1/2$   
y-intercept = 4

12) Slope =  $-5/3$   
y-intercept = -2

13) Slope = 0.5  
y-intercept = -4

14) Slope = 0.2  
y-intercept = 3

15) Slope = -3  
y-intercept = -1

16) Slope =  $1/5$   
y-intercept = 0

17)  $y = \frac{7}{2}x - 9$

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

19)  $y = \frac{4}{3}x + 1$

20)  $y = x - 4$

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

22)  $y = 3x - 1$

23)  $y = 4x - 10$

24)  $y = \frac{5}{6}x$

### Synthesis

### Lesson 5.5