

**Mathematics 9**  
**Point-Slope Graphs**

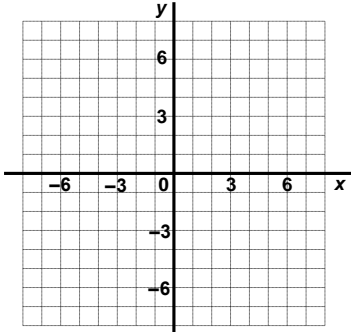
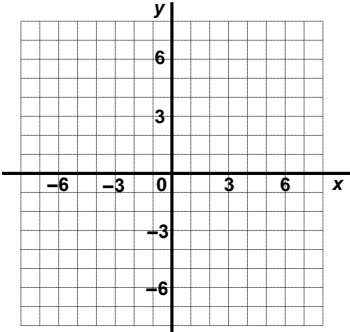
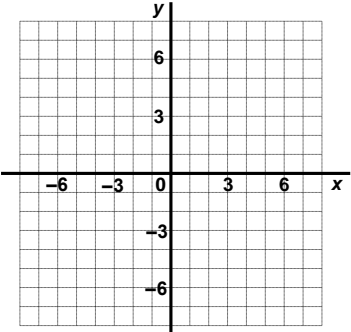
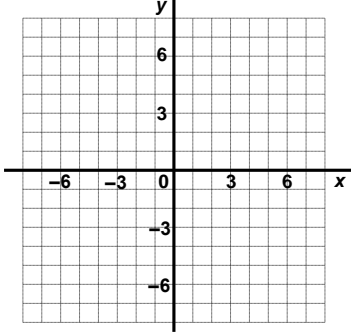
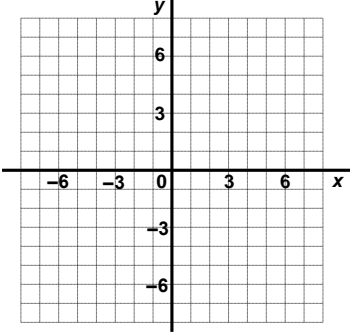
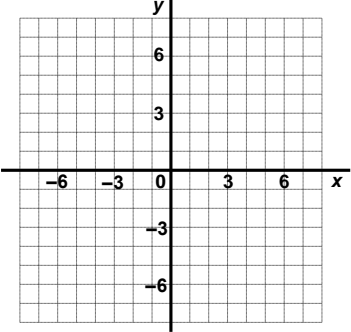
Date: \_\_\_\_\_

- ① For each of the slopes given in the table below:
- Complete the rows for **amount of slope** and **direction of slope** in words.
  - Give the **rise** and the **run** in the spaces provided.

<b>Graph #:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>Slope</b>	$\frac{4}{5}$	$\frac{5}{2}$	$-\frac{5}{3}$	$-\frac{1}{3}$	4	-3
<b>Direction Of Slope</b>						
<b>Amount Of Slope</b>						
<b>Run</b> (always positive)						
<b>Rise</b> (positive or negative)						

- ② On the 6 graphs below, plot lines which pass through the origin that have the given slopes.

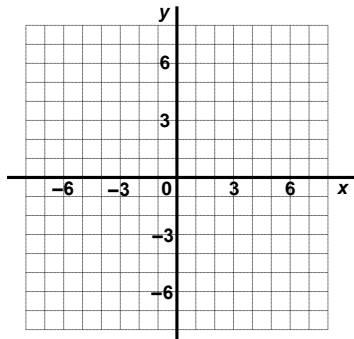
- Steps:**
- Place your pencil at the requested starting point.
  - Use a ruler draw the **run first**. Since this is always positive, it will always be drawn to the right from the starting point.
  - Now **draw the rise** from the end of the run. (**Up** if positive, **down** if negative.)
  - Draw a line through the ends of the rise and run and **extend the line to the edges of the grid**.

 <p>1. slope = <math>\frac{4}{5}</math> ; start at (0,0)</p>	 <p>2. slope = <math>\frac{5}{2}</math> ; start at (0,0)</p>	 <p>3. slope = <math>-\frac{5}{3}</math> ; start at (0,0)</p>
 <p>4. slope = <math>-\frac{1}{3}</math> ; start at (0,0)</p>	 <p>5. slope = 4 ; start at (0,0)</p>	 <p>6. slope = -3 ; start at (0,0)</p>

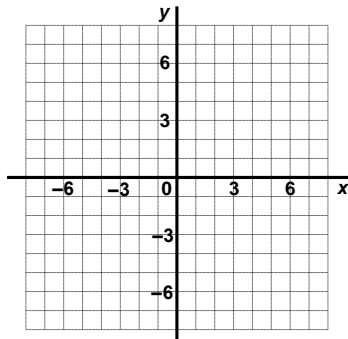
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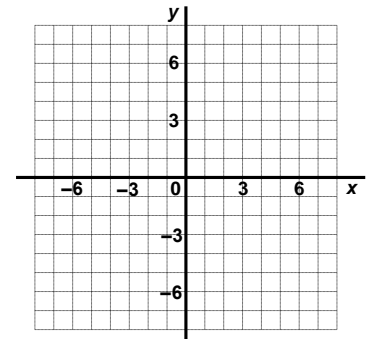
For the remaining graphs notice that the requested start point for the *run* is no longer at the origin.



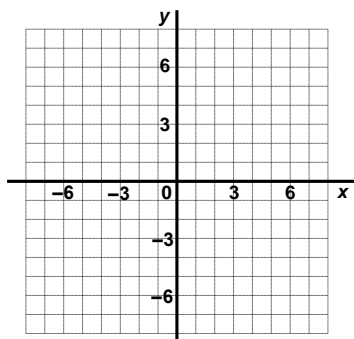
7. slope =  $\frac{2}{3}$  ; start at (1,1)



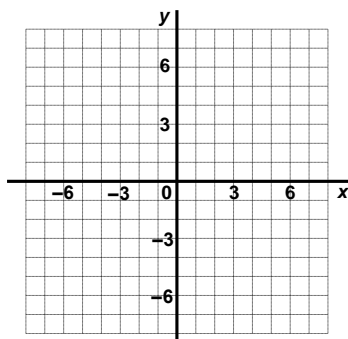
8. slope =  $-\frac{11}{4}$  ; start at (2,6)



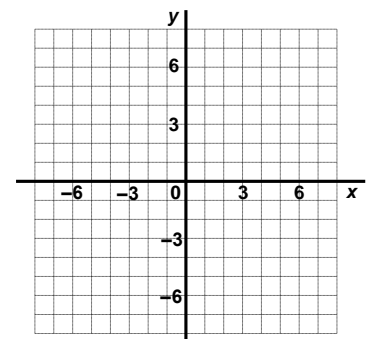
9. slope =  $-\frac{1}{5}$  ; start at (-5,5)



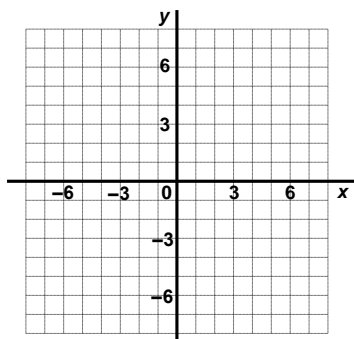
10. slope =  $\frac{5}{4}$  ; start at (-4,0)



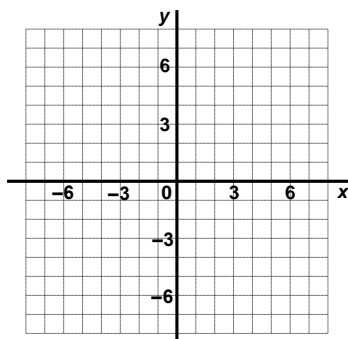
11. slope = -6 ; start at (0,5)



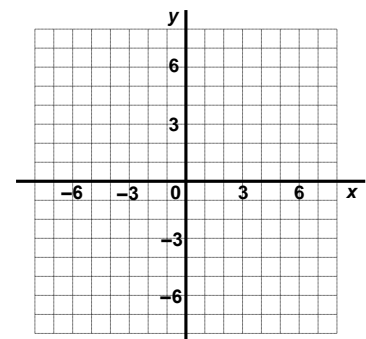
12. slope = 5 ; start at (0,-3)



13. slope =  $\frac{3}{5}$  ; start at (-4,-7)



14. slope =  $-\frac{1}{2}$  ; start at (-7,1)



15. slope =  $\frac{5}{7}$  ; start at (-1,-3)

**To Check Answers:**

If drawn correctly, your line will also go through the point indicated below. (*A near miss probably means that you just need to be more careful when lining up your ruler to draw the line—try it!*)

- |            |            |             |             |            |             |
|------------|------------|-------------|-------------|------------|-------------|
| 1. (-5,-4) | 2. (-2,-5) | 3. (-3,5)   | 4. (-6,2)   | 5. (2,8)   | 6. (-1,3)   |
| 7. (7,5)   | 8. (6,-5)  | 9. (5,3)    | 10. (-8,-5) | 11. (2,-7) | 12. (-1,-8) |
| 13. (6,-1) | 14. (1,-3) | 15. (-8,-8) |             |            |             |