

Mathematics 9  
Point-Slope Graphs

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

- a) Complete the rows for *amount of slope* and *direction of slope* in words.  
b) Give the *rise* and the *run* in the spaces provided.

Graph #:	1	2	3	4	5	6
Slope	$\frac{4}{5}$	$\frac{5}{2}$	$-\frac{5}{3}$	$-\frac{1}{3}$	4	-3
Direction Of Slope	UP	UP	DOWN	DOWN	UP	DOWN
Amount Of Slope	STEEP	STEEP	STEEP	STRONG	STEEP	STEEP
Run (always positive)	5	2	3	3	1	1
Rise (positive or negative)	4	5	-5	-1	4	-3

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

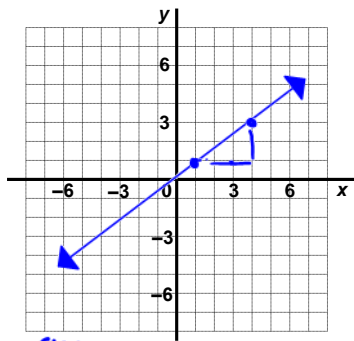
- Steps:**
- Place your pencil at the requested starting point.
  - Use a ruler draw the **run first**. Since this is always positive, it will always be drawn to the right from the starting point.
  - Now **draw the rise** from the end of the run. (**Up** if positive, **down** if negative.)
  - Draw 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) rise <math>\leftarrow</math> run <math>\rightarrow</math></p>	<p>5. slope = 4; start at (0,0) rise <math>\leftarrow</math> run <math>\rightarrow</math></p>	<p>6. slope = -3; start at (0,0) rise <math>\leftarrow</math> run <math>\rightarrow</math></p>

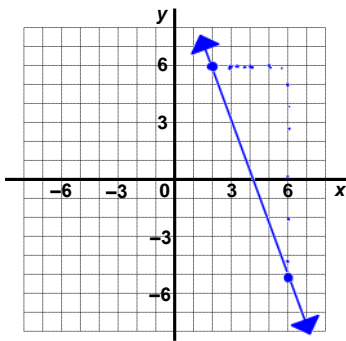
For the remaining graphs notice that the requested start point for the *run* is no longer at the origin.

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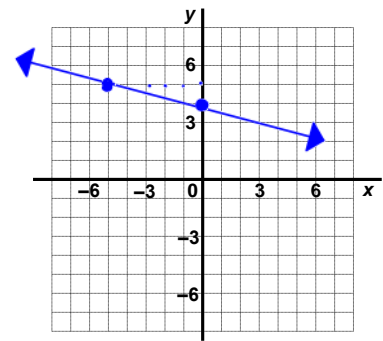
Date: \_\_\_\_\_



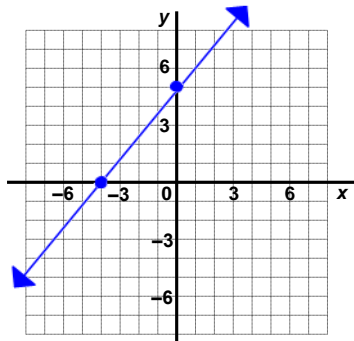
7. slope =  $\frac{2}{3}$ ; start at (1,1)



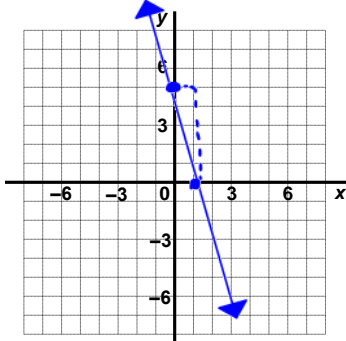
8. slope =  $-\frac{11}{4}$ ; start at (2,6)



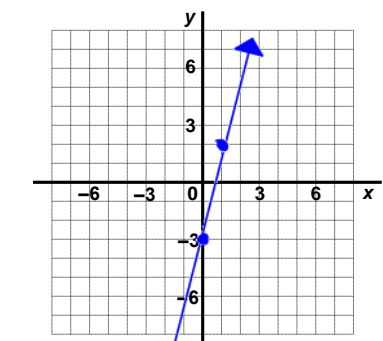
9. slope =  $-\frac{1}{5}$ ; start at (-5,5)



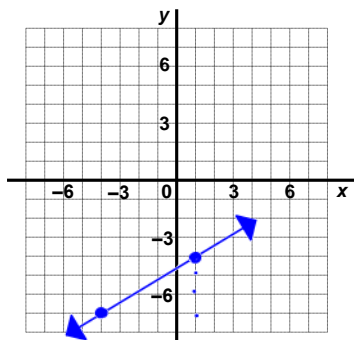
10. slope =  $\frac{5}{4}$ ; start at (-4,0)



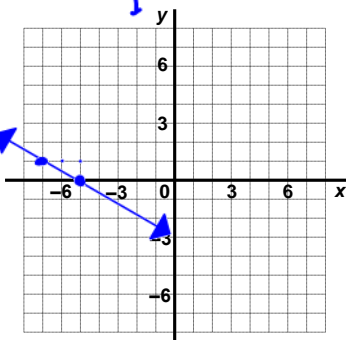
11. slope =  $-6$ ; start at (0,5)



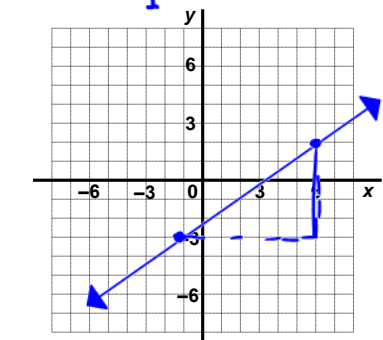
12. slope =  $5$ ; start at (0,-3)



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) |             |            |             |