

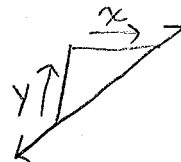
Name: NOTES
Geometry L 2.4

Date: _____
Mrs. DeNeef

The Slope of a Line

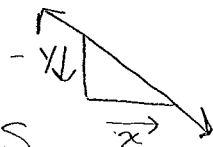
Slope:

Formula: $m = \frac{y_2 - y_1}{x_2 - x_1}$ or $\text{slope} = \frac{\text{rise}}{\text{run}}$



Positive Slope: As a point moves from L $\rightarrow$ R along a line that is "rising", y increases as x increases

Negative Slope: As a point moves from L $\rightarrow$ R along a line that is "falling", y decreases as x increases

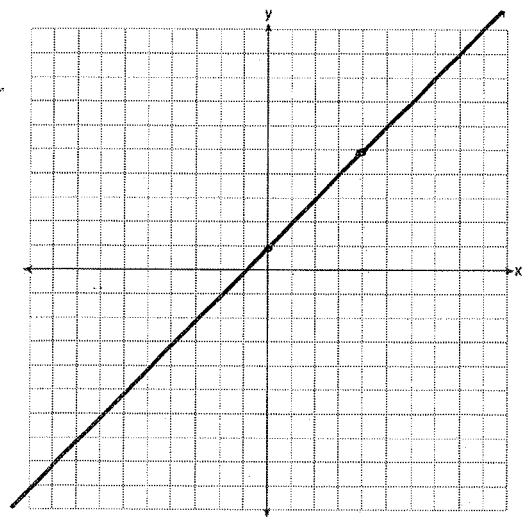


Zero Slope: If a line is parallel to the x -axis

No Slope: If a line is parallel to the y -axis

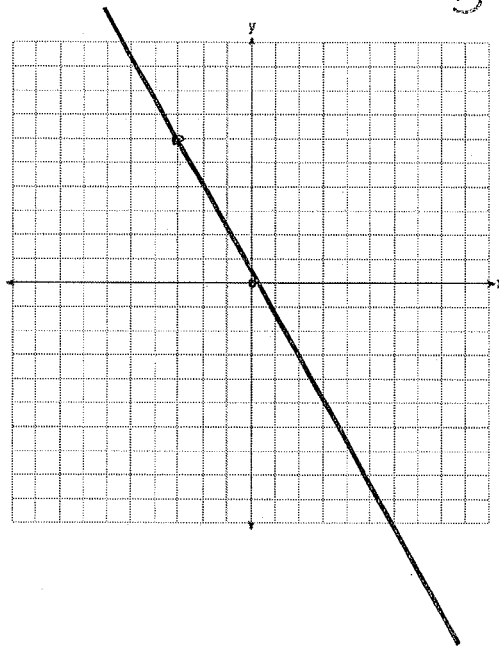
① Positive

$$\frac{5-1}{4-0} = \frac{4}{4}$$
$$m=1$$



② Negative

$$\frac{6-0}{-3-0} = \frac{6}{-3} = \frac{-2}{1}$$



Plot the points and find the slope of the line. Also, tell whether the line has positive, negative, zero, or no slope.

1. (0,1) and (4,5)

2. (0,0) and (-3,6)

3. (5,-3) and (1,-1)

4. (-1,-2) and (7,-8)

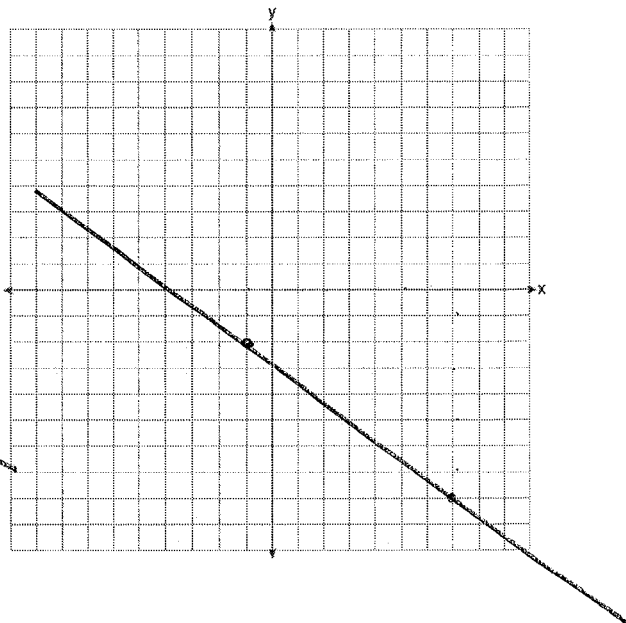
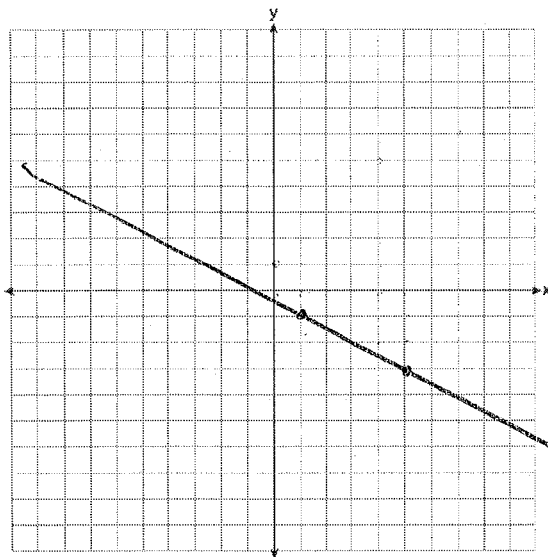
$$\frac{-1 - -3}{1 - 5} = \frac{-2}{-4} = \frac{1}{2}$$

$$\frac{-8 - -2}{7 - -1} = \frac{-6}{8} = -\frac{3}{4}$$

③

neg.

neg.



Draw a line with the given slope, m , through the given point.

5. (-1,3); $m = 3$

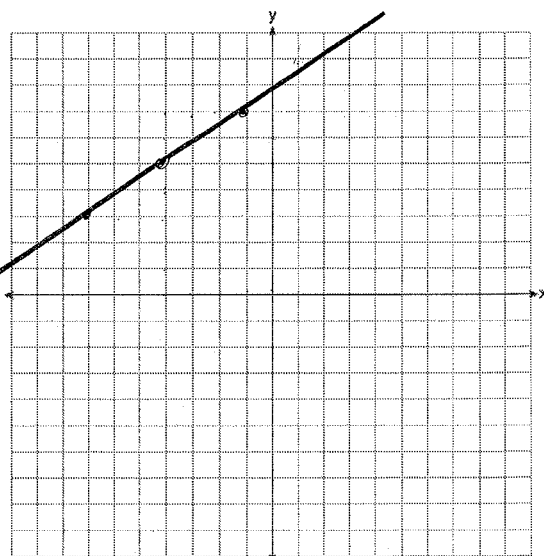
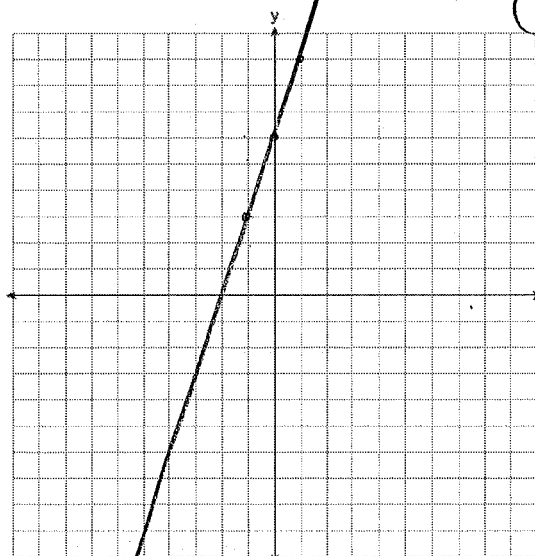
6. (-4,5); $m = \frac{2}{3}$

7. (-4,7); $m = -2$

8. (-2,3); $m = -\frac{3}{2}$

⑤

⑥



HW: p.361 4-28 even