

# Algebra I

## 8-3 Slope

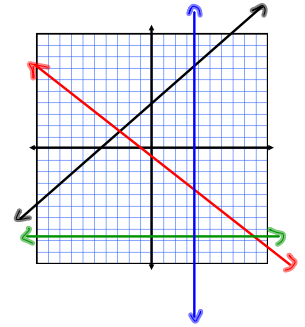
Slope -  $m = \frac{\text{rise}}{\text{run}} = \frac{y_2 - y_1}{x_2 - x_1}$

Positive Slope - uphill, left to right

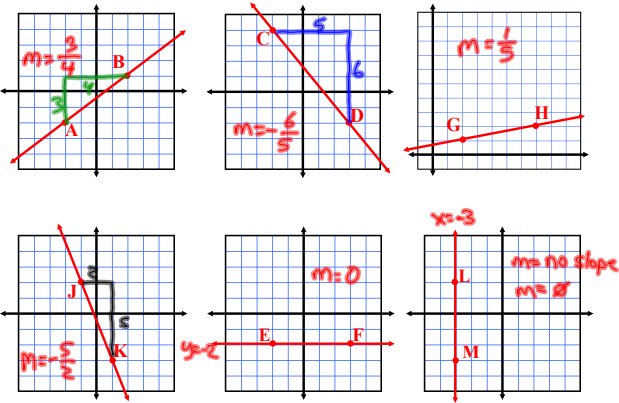
Negative Slope - downhill, left to right

Zero Slope - horizontal lines.  
 $y = \text{lines}$

No Slope - vertical lines  
 $x = \text{lines}$



### Pg 363 - Oral Exercises



Find the slope of the line through the given points. (pg 363)

1)  $(8, 4), (6, 5)$

11)  $(0, -3), (3, -1)$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{5 - 4}{6 - 8} = \frac{1}{-2} = -\frac{1}{2}$$

$$m = -\frac{1}{2}$$

$$m = \frac{-3 - (-1)}{0 - 3} = \frac{-3 + 1}{-3} = \frac{-2}{-3} = \frac{2}{3}$$

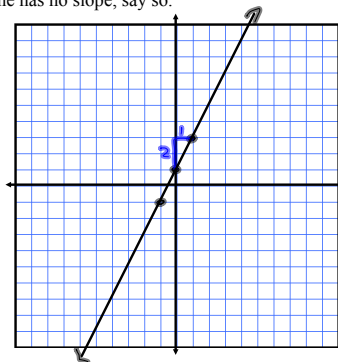
$$m = \frac{2}{3}$$

Find the slope of each line. If the line has no slope, say so.

13)  $y = 2x + 1$

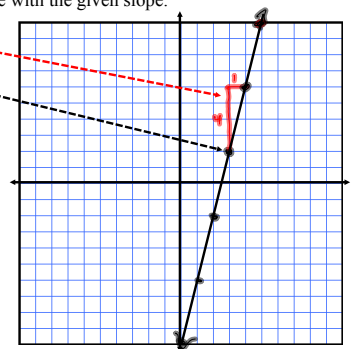
x	y
0	1 $2(0)+1$
-1	-1 $2(-1)+1$
1	3 $2(1)+1$

$$m = \frac{2}{1} = 2$$



Through the given point, draw a line with the given slope.

25) A  $(3, 2)$ ; slope 4



Assignment:

Pg. 363

2-12 even

16, 17, 20, 22 }  
23, 26, 28, 30 } Graph, 1 per graph