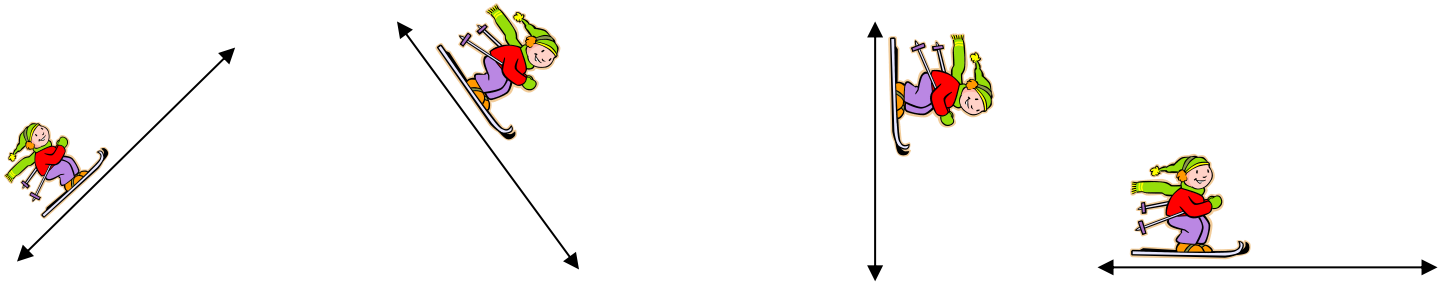
Unit 3. Day 15: Slope

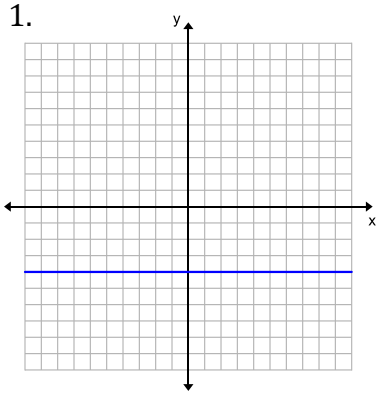
We always read a graph from LEFT to RIGHT (like a book!)



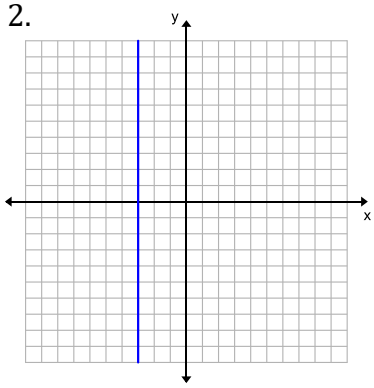
What is slope?

Slope(m): $\frac{\text{Rise}}{\text{run}} = \frac{\Delta y}{\Delta x} = \frac{\text{Difference of y's}}{\text{Difference of x's}}$

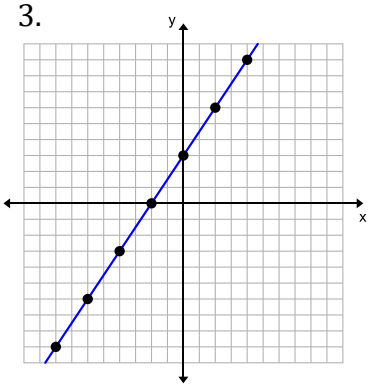
Determine whether the slope is positive, negative, zero, or undefined.

1. 

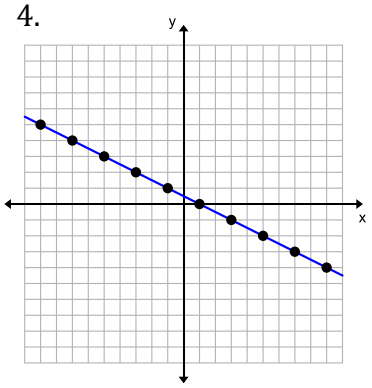
zero

2. 

und.

3. 

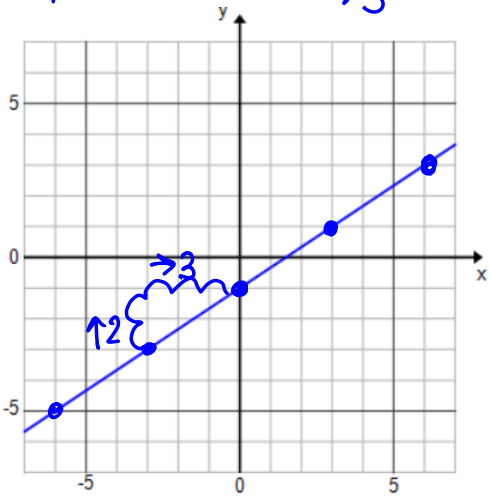
positive

4. 

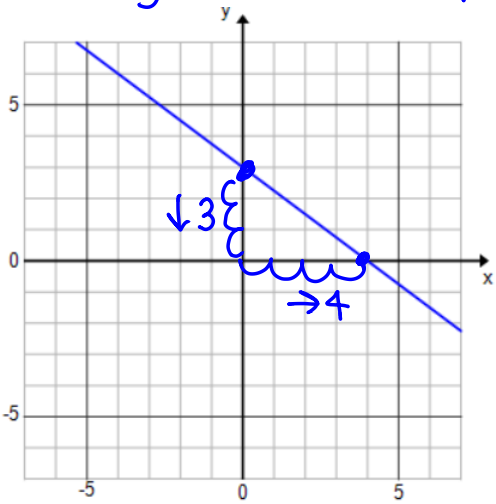
negative

First decide if the slope is positive, negative, or neither, then determine the actual slope of the line.

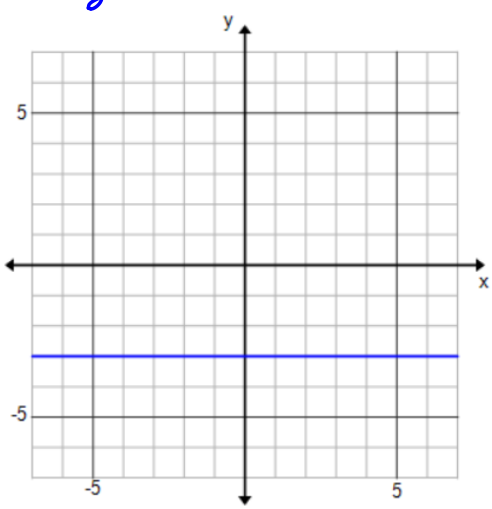
5. positive: $m = 2/3$



6. negative: $m = -3/4$

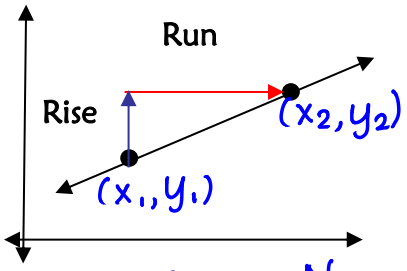


7. zero: $m = 0$



Determine the slope from 2 points:

Slope: $\frac{y_2 - y_1}{x_2 - x_1} = \frac{\Delta y}{\Delta x}$



0 ✓ N 0

K 0

Find the slope of the line the passes through the points.

8) (5, 2) and (4, -1)

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

9) (-2, 3) and (4, 6)

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

11) (5, 2) and (5, -2)

$\frac{-2-2}{5-5} = \frac{-4}{0}$

undefined!

Try these with your partner: Raise your hand once you have completed each one to get it checked by Miss P!

10) (-1,-8) and (3, -10)

$\frac{-10+8}{3+1} = \frac{-2}{4} = -\frac{1}{2}$

11) (0, 4) and (-3, 4)

$\frac{4-4}{-3-0} = \frac{0}{-3} = 0$

12) (0, 6) and (5, -4)

$\frac{-4-6}{5-0} = \frac{-10}{5} = -2$