

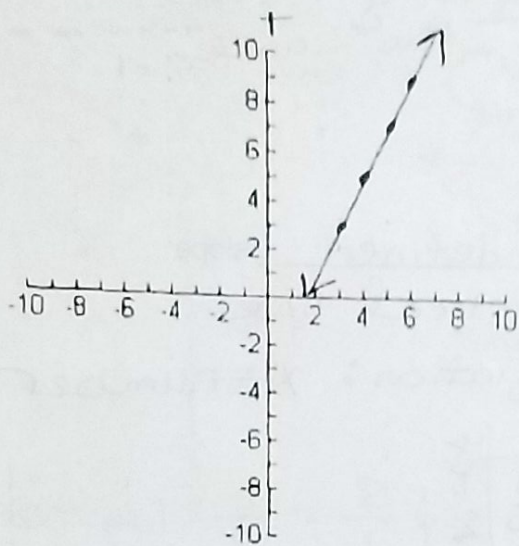
## Slope Notes

What is **SLOPE**?

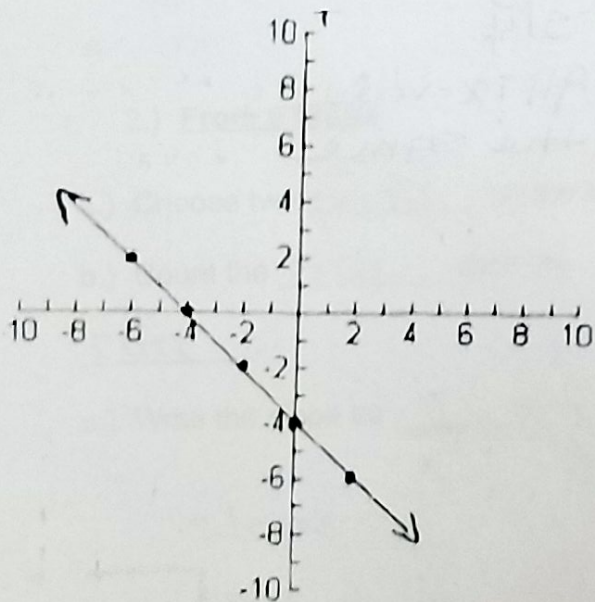
Slope describes the steepness of a line.

$$\frac{\text{change in } y}{\text{change in } x} = \frac{\text{rise}}{\text{run}}$$

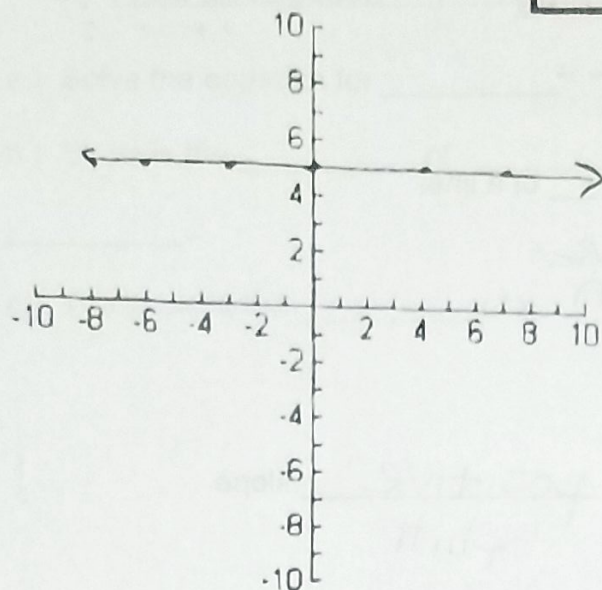
### TYPES OF SLOPE



a) positive slope  
uphill



b.) negative slope  
downhill



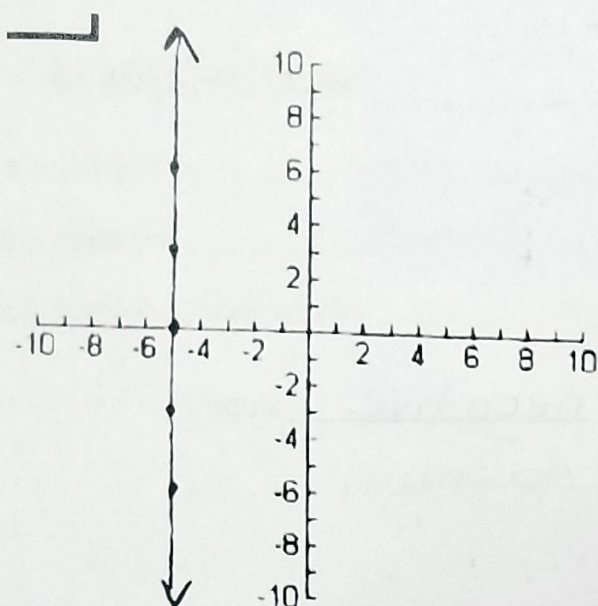
c.) zero slope

horizontal line

Equation:  $y = \text{number}$

x	y
1	5
2	5
3	5
4	5

All y-values  
the same



d.) undefined slope

vertical line

Equation:  $x = \text{number}$

x	y
-5	1
-5	2
-5	3
-5	4

All x-values  
the same

**HOW TO FIND SLOPE****1.) From a table**

a.) Find the constant rate of the x and y values.

b.) Write the slope as  $\frac{y}{x}$ .

x	y
1	2
2	4
3	6
4	8
5	10
6	12

x	y
-2	16
0	13
2	10
4	7

$$\text{slope} = \frac{y}{x} = \frac{-3}{2}$$

$$\text{slope} = \frac{y}{x} = \frac{2}{1} = 2$$

**2.) From a graph**

a.) Choose two points on the line.

b.) Count the rise then the run.

c.) Write the slope as  $\frac{y}{x} = \frac{\text{rise}}{\text{run}}$

$$\text{slope} = \frac{3}{2}$$

$$\text{slope} = \frac{-4}{3}$$

