

Slope can also be called the Steepness or Rate of Change of a linear relationship.

Positive Slopes rise from left to right, *Negative Slopes* fall from left to right.

The definition of Slope is the change in y values over the change in x values, or **Rise over Run**.

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

A **Y intercept** is a point (0,b) where the line crosses the Y axis, it always has an x value of zero.

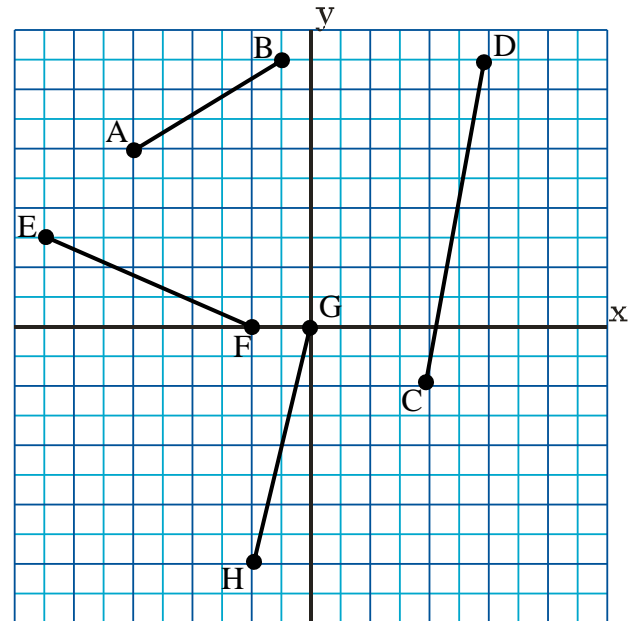
1. State the slope of the line segments given in the graph.
(4 marks)

Slope AB =

Slope CD =

Slope EF =

Slope GH =



2. Determine the SLOPE between the following points using the Slope Formula – Be sure to express your answer in **lowest terms**. (8 marks)

(a) A(3,4) and B(9,7)

(b) N(-3,10) and P(5,-6)

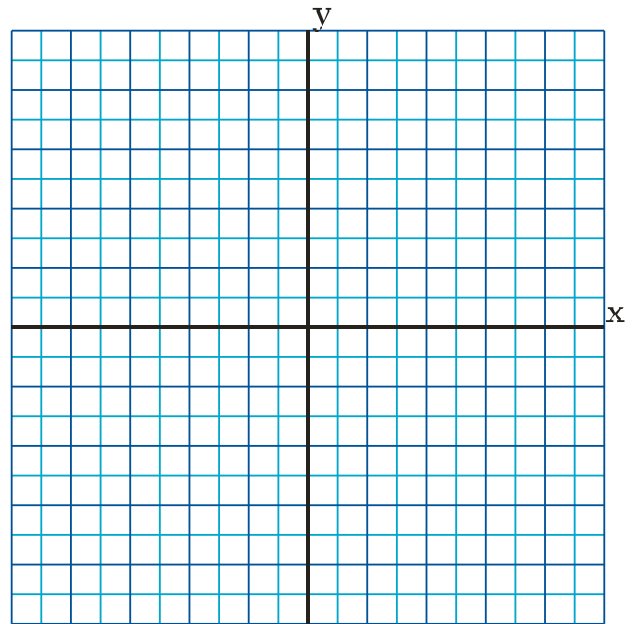
(c) H(-1,8) and K(3,-4)

(d) B(5,-9) and C(-3,-9)

3. Complete the table below and perform the following.
(8 marks)

X	Y
-2	7
-1	4
0	1

- Determine the First Differences for this relationship.
- Graph the line.
- Find the SLOPE of the line.
- Find the Y intercept of the line (coordinate form).
- Is the relationship Direct or Partial? Justify
- Write the Equation for this relationship.



4. Complete the table below and perform the following.
(8 marks)

X	Y
-4	-8
-3	
	-2
	0
1	2

- Determine the First Differences for this relationship.
- Graph the line.
- Find the SLOPE of the line.
- Find the Y intercept of the line (coordinate form).
- Is the relationship Direct or Partial? Justify
- Write the Equation for this relationship.

