**Distance Between Two Points**

The formula for distance between any two points is as follows:

d =(x2 – x1)2 + (y2 – y1)2

*Example #1: Find the distance between these two points.*

Point A (2,5) & Point B (10,5)

*Step 1 – Label the points*

Point A (2,5) Point B (10,5)

( x2 , y2 )

( x1 , y1 )

*Step 2 – Write the formula and calculate*

d =(x2 – x1)2 + (y2 – y1)2

d =(10 – 2)2 + (5 – 5)2

Note – if you want full marks, be sure to show ALL of these steps

d =(8)2 + (0)2

d =(64)

d = 8

*Example #2 – Find the distance between points A & B located at (0, 0) & (6, 8)*

*Step 1 – Label Points*

A (0, 0) B (6, 8)

( x2 , y2 )

( x1 , y1 )

*Step 2 – Write the formula and calculate*

d =(x2 – x1)2 + (y2 – y1)2

d =(6 – 0)2 + (8 – 0)2

d =(6)2 + (8)2

d =36 + 64

d =100

d = 10

Try these two problems on your own...

Find the distance between points A & B located at (-2, -2) & (10, 3)

Find the distance between points D & G located at (-3, -2) & (7, 1)