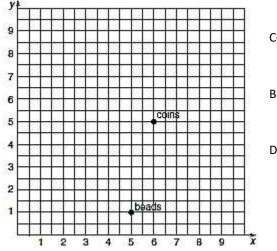# Distance Formula Notes

The **Distance Formula** allows you to find the <u>distance</u> between two points. The subscripts (x_1, y_1) only indicate that there is a first and second point. However, ***whichever point is first or second is up to you***.

Distance Formula: $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

1. Find the distance between (1, -2) and (-3, 6).

2. Find the distance between (8, -3) and (4, -7).

3. How would you find the distance between the coins and beads?

Coins are located at _____

Beads are located at _____

Distance _____

4. Use the distance formula to find the value of x if the distance between (1, 2) and (x, 5) is 5 units.

5. Use the distance formula to find the value of y if the distance between (-1, 4) & (5, y) is 10 units.