# GRAPH OF A LINEAR EQUATION

Draw the graph of the equation: y =x + 2

Step 1. Give some values to x and find the corresponding values of y and make a solution set.

Step 2. **Solution set** for the equation:  y =x + 2 (3 to 5 values)

| x | 1 | 2 | 3 | 0 | -1 | -2 |
|---|---|---|---|---|----|----|
| y =x + 2 | 3 | 4 | 5 | 2 | 1 | 0 |

Step 3: Plot the points (1 ,3), (2 ,4), (3, 5), (0, 2), (-1, 1), (-2, 0) on the **Cartesian Plane.**

Step 4: Select line tool and draw a line passing through any two points. This line is called the graph of the linear equation: y =x + 2

Note: 1. Graph of a linear equation in two variables is a **straight line**.

2. Every point on this line is a **solution** of the equation: y =x + 2

3. A linear equation in two variables has **infinite solutions**.

4. The graph of y =x + 2 cuts x-axis at (-2, 0).

5. The graph of y =x + 2 cuts y-axis at (0, 2).

6. The graph of y =x + 2 does not pass through the origin.