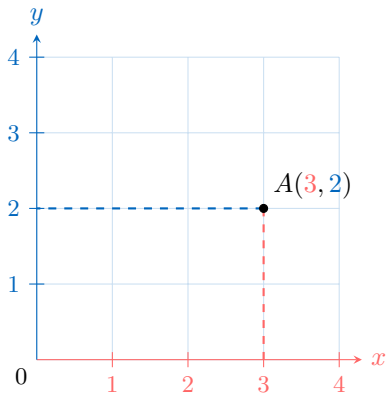
COORDINATE GEOMETRY

A COORDINATE PLANE

Definition Coordinate Plane

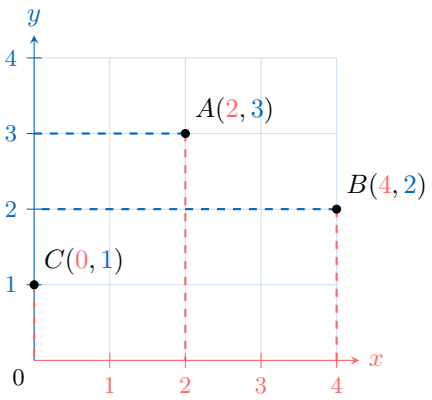
A **coordinate plane** is a grid formed by two number lines that cross at zero. One number line goes left and right (called the **x-axis**), and the other goes up and down (called the **y-axis**).
The **coordinates of a point** are a pair of numbers, like $A(2,3)$. The first number tells you how far to move right, and the second number tells you how far to move up.



Ex: Plot these points on a coordinate plane: $A(2,3), B(4,2),$ and $C(0,1)$.

Answer:

- For $A(2,3)$: Move 2 units right, then 3 units up.
- For $B(4,2)$: Move 4 units right, then 2 units up.
- For $C(0,1)$: Stay at 0 units right, move 1 unit up.



B TABLE OF POINTS

Definition Table of Points

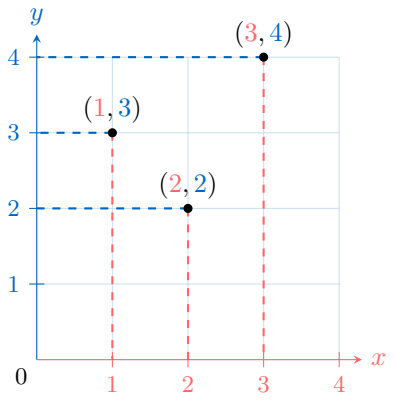
A **table of points** lists the coordinates of points in a coordinate plane.

- The first row represents the **x-coordinates**.
- The second row represents the **y-coordinates**.

Ex:

x	1	2	3
y	3	2	4

This table represents the points $(1,3)$, $(2,2)$, and $(3,4)$ on the coordinate plane:


y
x
0
1
2
3
4
(3, 4)
(1, 3)
(2, 2)