

## Exercise 15.2

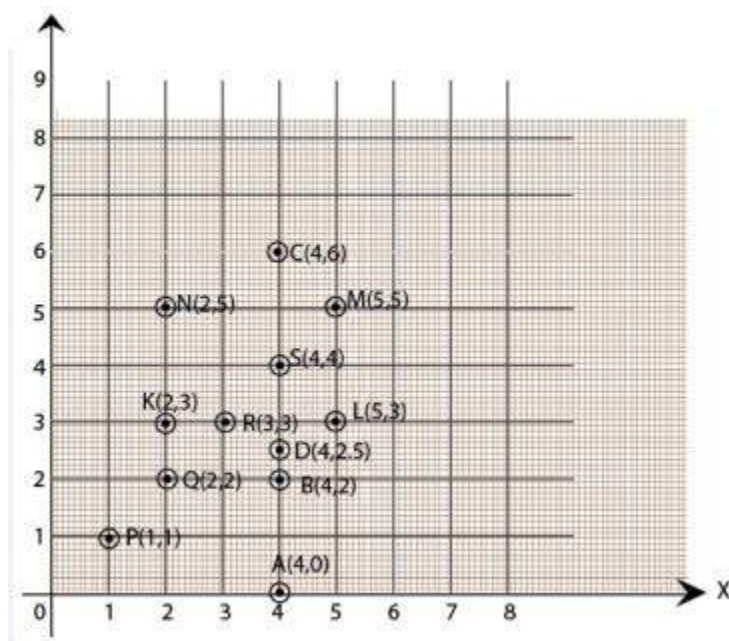
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1. Plot the following points on a graph sheet. Verify if they lie on a line

- (a) A(4,0), B(4, 2), C(4,6), D(4, 2.5)
- (b) P(1, 1), Q(2, 2), R(3,3), S(4, 4)
- (c) K(2, 3), L(5, 3), M(5,5), N(2, 5)

**Solution:**

Plot all the points on the graph.



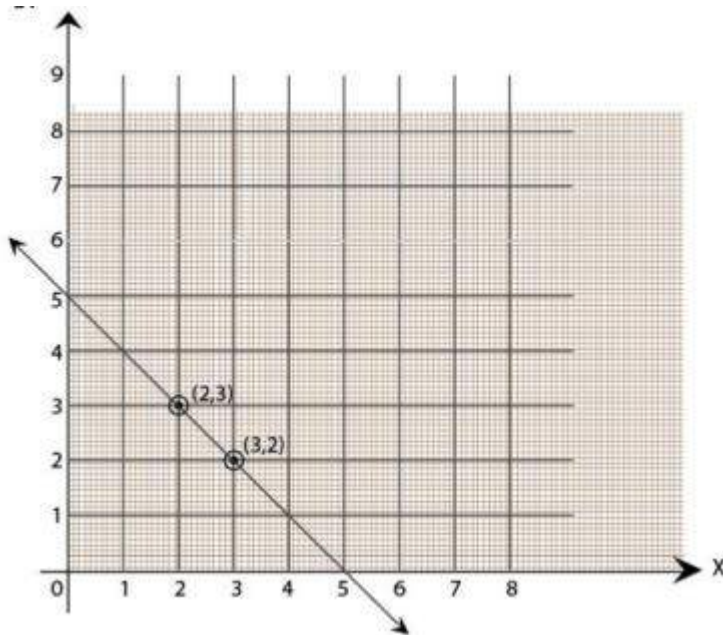
(a) All points A, B, C and D lie on a vertical line.

(b) P, Q, R and S points also make a line. It verifies that these points lie on a line.

(c) Points K, L, M and N. These points do not lie in a straight line.

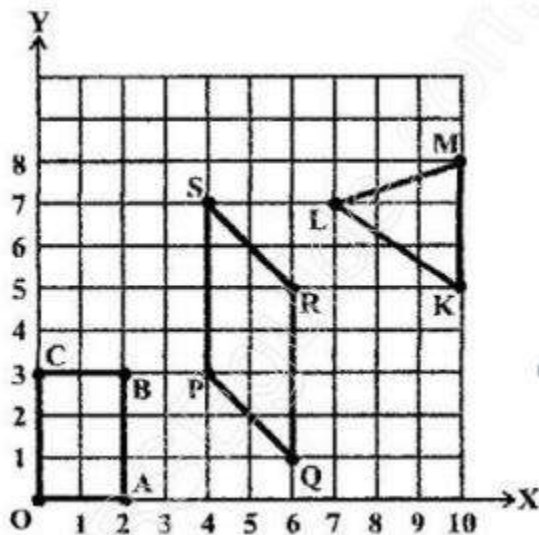
2. Draw the line passing through (2,3) and (3,2). Find the coordinates of the points at which this line meets the x-axis and y-axis.

**Solution:** Graph for the Line passes through points (2, 3) and (3, 2) is:



The coordinates of the points at which this line meets the x-axis at (5, 0) and Y axis at (0, 5).

**3. Write the coordinates of the vertices of each of these adjoining figures.**



**Solution:**

We can observe three figures named as, OABC, PQRS and LMK.

**Vertices of figure OABC**

O (0, 0), A (2, 0), B (2, 3) and C (0, 3)

**Vertices of figure PQRS**

P (4, 3), Q (6, 1), R (6, 5) and S (4, 7)

**Vertices of figure LMK**

L (7, 7), M(10, 8) and K(10,5)

**4. State whether True or False. Correct that are false.**

- (i) A point whose x coordinate is zero and y-coordinate is non-zero will lie on the y-axis.
- (ii) A point whose y coordinate is zero and x-coordinate is 5 will lie on y-axis.
- (iii) The co-ordinates of the origin are (0, 0).

**Solution:**

- i) True
- ii) False, it will lie on x axis
- (iii) True