Question 1:
Solution:

    (i)   The abscissa is 0

    (ii)   The abscissa is 3

    (iii)   The abscissa is -2

    (iv)   The abscissa is 6

Question 2:
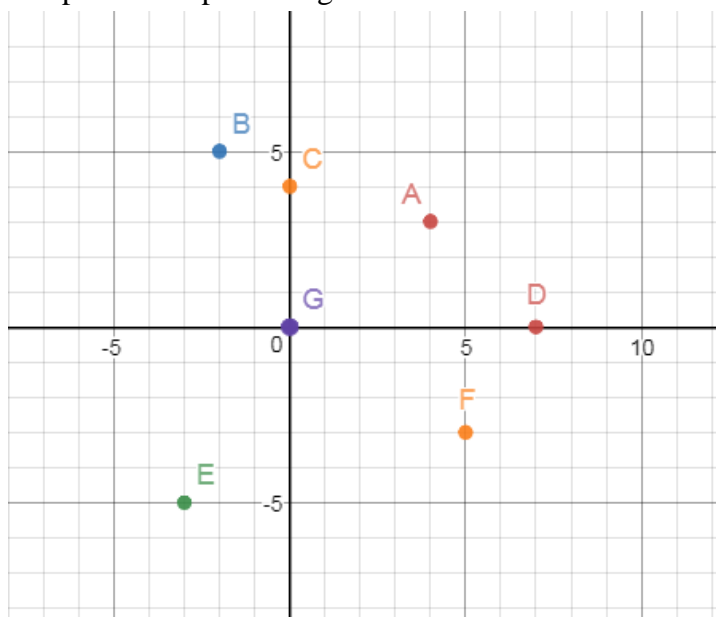**Solution:**

    (i)   The ordinate is 0

    (ii)   The ordinate is 2

    (iii)   The ordinate is -4

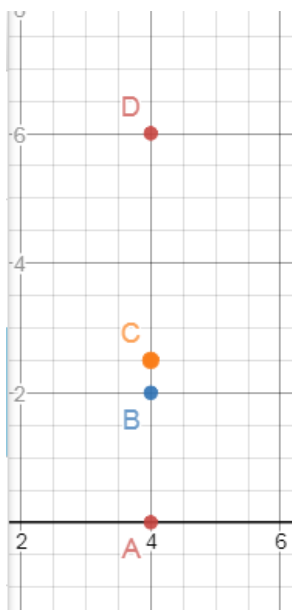   (iv)   The ordinate is -7

Question 3:
Solution:
The plot of the points is given below:

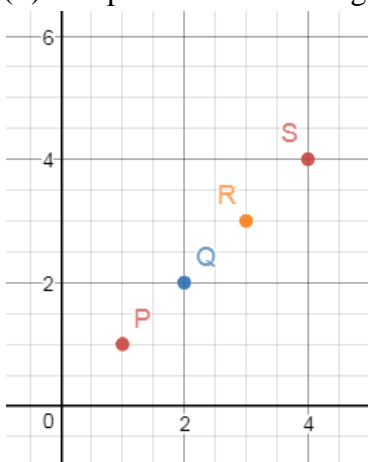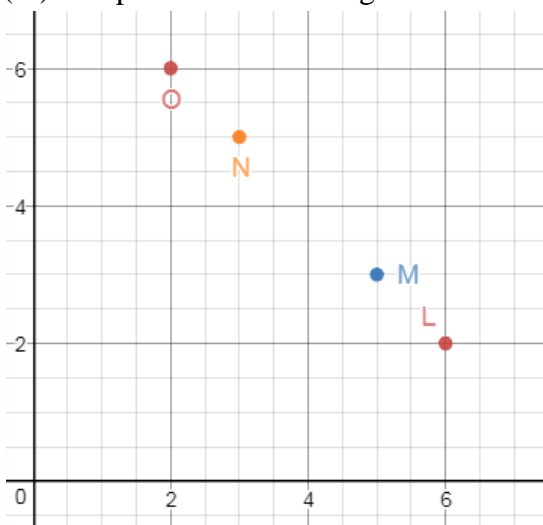**Question 4:**
Solution:
(i) The points lie on a line.

(ii) The points lie on a straight line.

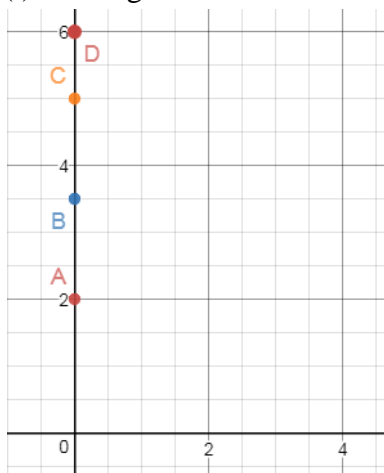(iii) The points lie on a straight line.

Question 5:
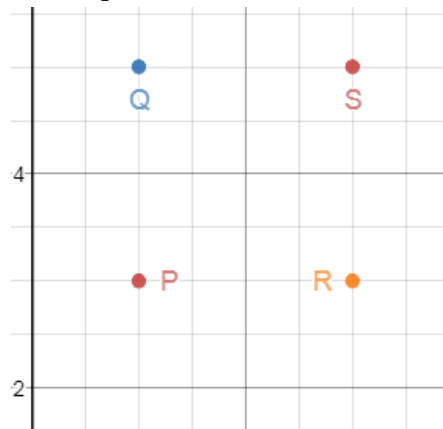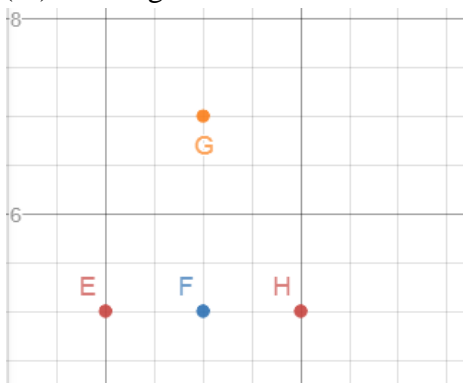**Solution:**
(i) A straight line is formed.
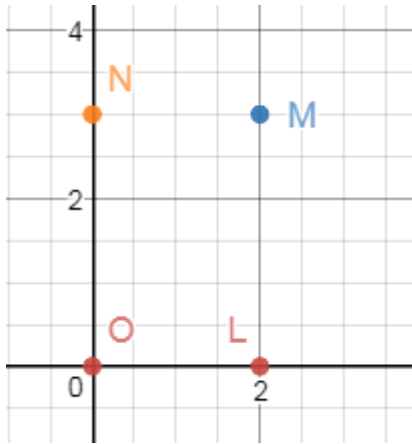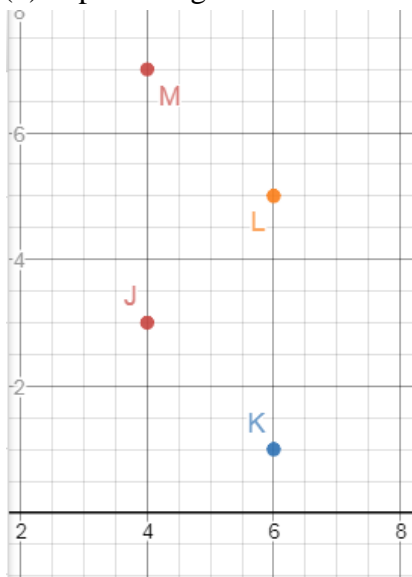

(ii) A square is formed.

(iii) A triangle is formed.
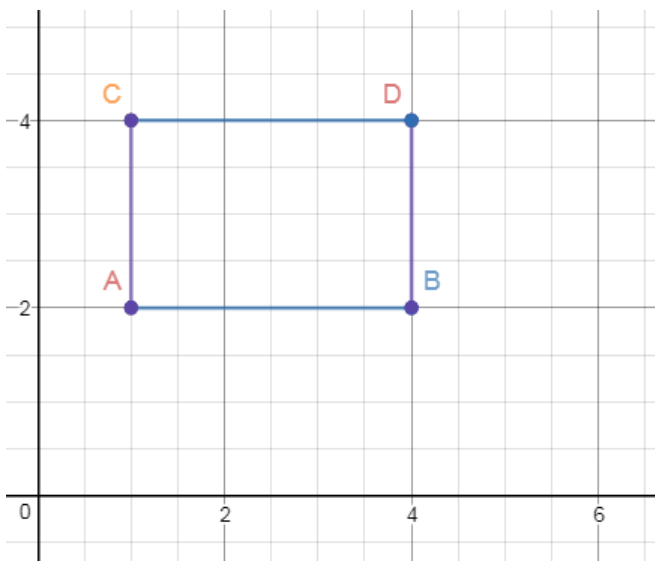
(iv) A rectangle is formed.
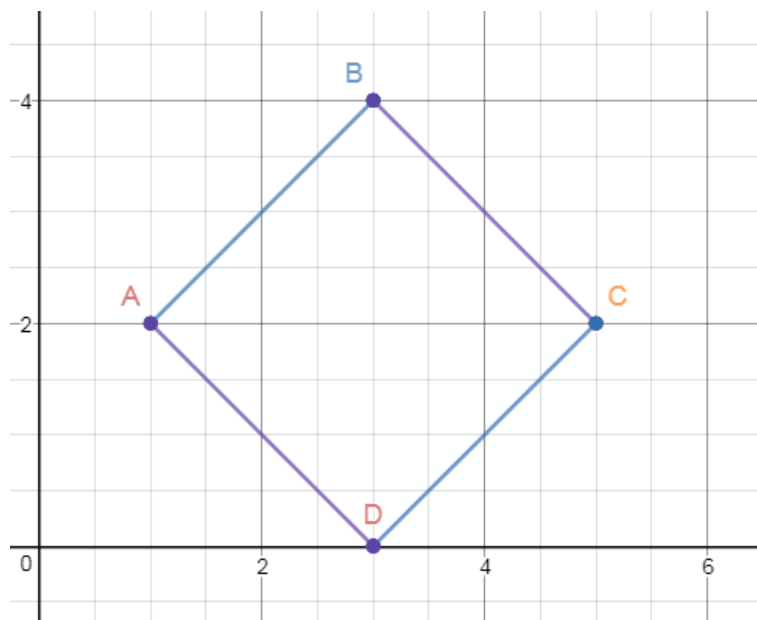

(v) A parallelogram is formed.
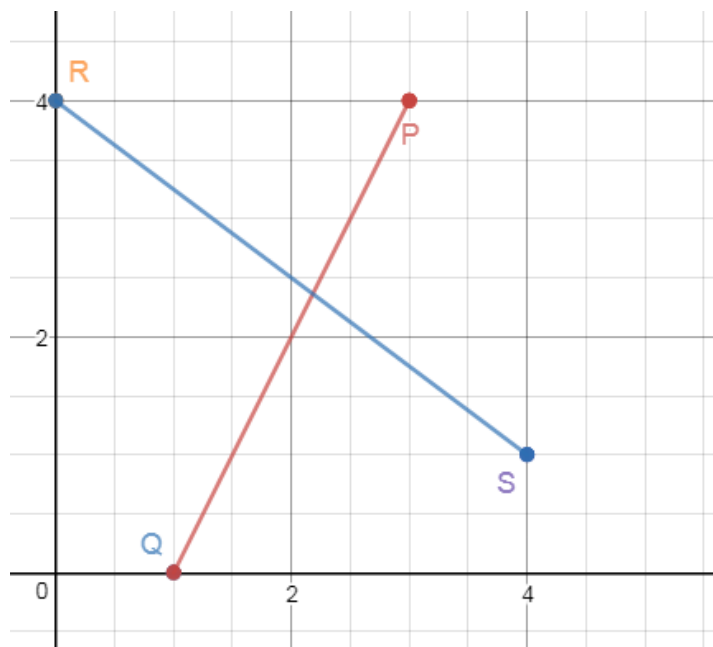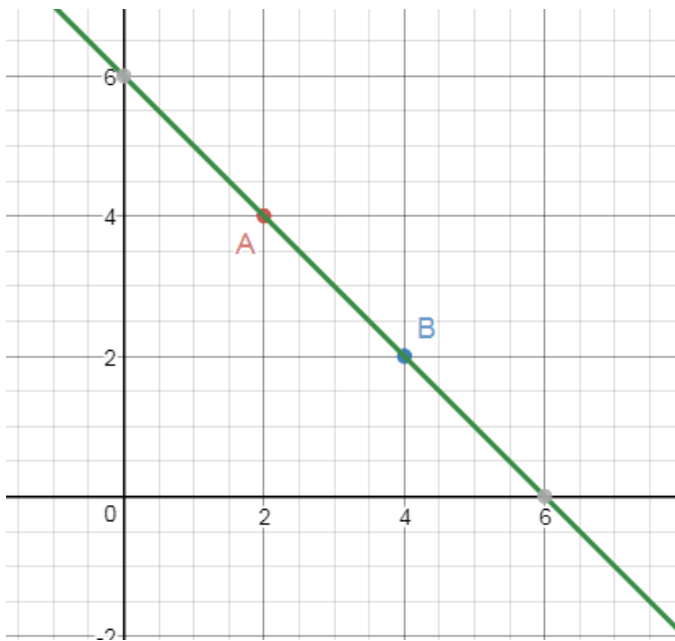

Question 6:
Solution:

The coordinates of point D are (4, 4).

Question 7:
Solution:

From the graph, point D is represented as (3, 0) and the diagonals are equal.

Question 8:
Solution:

The lines intersect at approximately (2.2, 2.4).

Question 9:

Solution:

The coordinates of the points where this line meets the x-axis and the y-axis are (6, 0) and (0, 6).

Question 10:

Solution:

From the graph it is clear that

(a) (2, 1) represents E.

(b) (0, 5) represents B

(c) (2, 0) represents G

The coordinates of the points A are (4, 5) and F are (5.5, 0)

Question 11:

Solution:

The coordinates of all points are as follows: A(4, 7), B(7, 4), C(4, 1), D(1, 4), E(3,5), F(5,5), G(5,3), H(3, 3), 1(4, 5), J(5, 4), K(4, 3), L(3, 4).

Question 12:

Solution:

The coordinates of the vertices are as follows:

A(1, 1), B(3, 0), C(4, 2), D(2, 3); I(1, 2), J(2, 4), K(0,5); E(5, 1), F(6, 3), G(5,5) H(4, 3); L(2,5), M(1,5), N(2, 6), O(3, 6), P(4, 5), Q(4, 4)

Question 13:

Solution:

(i)   y – axis as the x-coordinate is zero.

(ii)   x - axis as the y-coordinate is zero.

(iii)   0 as the point lies on the y-axis.

(iv)   origin as the two axes intersect.
(v)   2 units
(vi)   x - coordinate as it indicates distance from the y - axis.
(vii)   (0,0) as they represent the origin.

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Exercise 22B

Question 1:
Solution: (a)
Since both the points are positive, the point lies in the first quadrant.

Question 2:
Solution: (c)
Since both the points are negative, the point lies in the third quadrant.

Question 3:
Solution: (d)
Since the x-coordinate is positive and the y-coordinate is negative, the point lies in the fourth quadrant.

Question 4:
Solution: (b)
Since the y-coordinate is positive and the x-coordinate is negative, the point lies in the second quadrant.

Question 5:
Solution: (c)
This is quite evident from the definition of abscissa.

Question 6:
Solution: (d)
The equation of y = a is a line parallel to the x-axis that passes through the point y = a.

Question 7:
Solution: (a)
The y-axis is represented as x = 0.