

### Exercise - 5.1

① Plot the following points in the coordinate system and identify the quadrants.  $P(-7, 6)$ ,  $Q(7, -2)$ ,  $R(-6, -7)$ ,  $S(3, 5)$  and  $T(3, 9)$ .

⇒  $P(-7, 6)$

then,  $x$ -coordinate is negative and  $y$ -coordinate is positive

so, point  $P(-7, 6)$  lies in the II quadrant.

$Q(7, -2)$ ,

now,  $x$ -coordinate is positive and  $y$ -coordinate is negative.

then,  $Q(7, -2)$  lies in IV-quadrant.

$R(-6, -7)$

now,  $x$ -coordinate is negative and  $y$ -coordinate is negative.

then,  $R(-6, -7)$  lies in III-quadrant.

$S(3, 5)$

now,  $x$ -coordinate is positive and  $y$ -coordinate is positive.

then,  $S(3, 5)$  lies in I-quadrant.

$T(3, 9)$

now,  $x$ -coordinate is positive and  $y$ -coordinate is positive.

then  $T(3, 9)$  lies in I quadrant.

② Write down the abscissa and ordinate of the following from figure, (i) P (ii) Q (iii) R (iv) S

⇒ (i) Now, P is point is  $(-4, 4)$ . Given by the given figure

∴ The abscissa is  $-4$

and the ordinate is  $4$ .

(ii) By the given figure,

Q point is  $(3, 3)$ .

$\therefore$  The abscissa is 3 and the ordinate is 3.

(iii) By the given figure,

R point is  $(4, -2)$

$\therefore$  The abscissa is 4 and the ordinate is -2.

(iv) By the given figure,

S point is  $(-5, -3)$ .

$\therefore$  The abscissa is -5 and the ordinate is -3.

③ Plot the following points in the coordinate plane and join them. What is your conclusion about the resulting figure?

(i)  $(-5, 3), (-1, 3), (0, 3), (5, 3)$

(ii)  $(0, -4), (0, -2), (0, 4), (0, 5)$

$\Rightarrow$  (i) Given the points joining them, straight line parallel to  $x$ -axis.

(ii) Given the points joining them, straight line which lie on  $y$ -axis.

④ plot the following points in the coordinate plane. Join them in order. What type of geometrical shape is formed?

(i)  $(0,0), (-4,0), (-4,-4), (0,-4)$

(ii)  $(-3,3), (2,3), (-6,-1), (5,-1)$ .

→ (i) Given the point joining then geometrical shape is square.

→ (ii) Given the point joining then, geometrical shape is Trapezium.