WORKSHEET 3

CHAPTER 3 – COORDINATE GEOMETRY

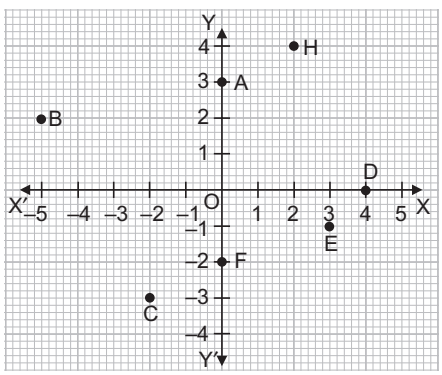
1. On which axis, do the given points lie?
   (*i*) (7, 0) (*ii*) (0, –3) (*iii*) (0, 6) (*iv*) (–5, 0)

2. In which quadrant do the following points lie?
   (*i*) (4, 2) (*ii*) (–3, 5) (*iii*) (–2, –5) (*iv*) (4, –2)

3. Write whether the following statements are True or False?
   (*i*) Point (3, 0) lies in the first quadrant.
   (*ii*) Points (1, –1) and (–1, 1) lie in the same quadrant.
   (*iii*) The coordinates of a point whose ordinate is $\frac{-1}{2}$ and abscissa is 1 are $\left(\frac{-1}{2}, 1\right)$.
   (*iv*) A point lies on *y*-axis at a distance of 2 units from the *x*-axis. Its coordinates are (2, 0).
   (*v*) (–1, 7) is a point in the II quadrant.

4. Plot the point P(–6, 2), and from it draw PM and PN as perpendiculars to *x*-axis and *y*-axis respectively. Write the coordinates of the points M and N.

5. From the given graph, write the following:
   (*i*) Coordinates of B, C and E.
   (*ii*) The point identified by the coordinates (0, –2).
   (*iii*) The abscissa of the point H.
   (*iv*) The ordinate of the point D.



6. Plot the following points and write the name of the figure obtained by joining them in order: P(–3, 2), Q(–7, –3), R(6, –3), S(2, 2)

7. Plot the following points and check whether they are collinear or not:
   (*i*) (1, 3), (–1, –1), (–2, –3)
   (*ii*) (1, 1), (2, –3), (–1, –2)
   (*iii*) (0, 0), (2, 2), (5, 5)

8. Which of the following points lie on *y*-axis?

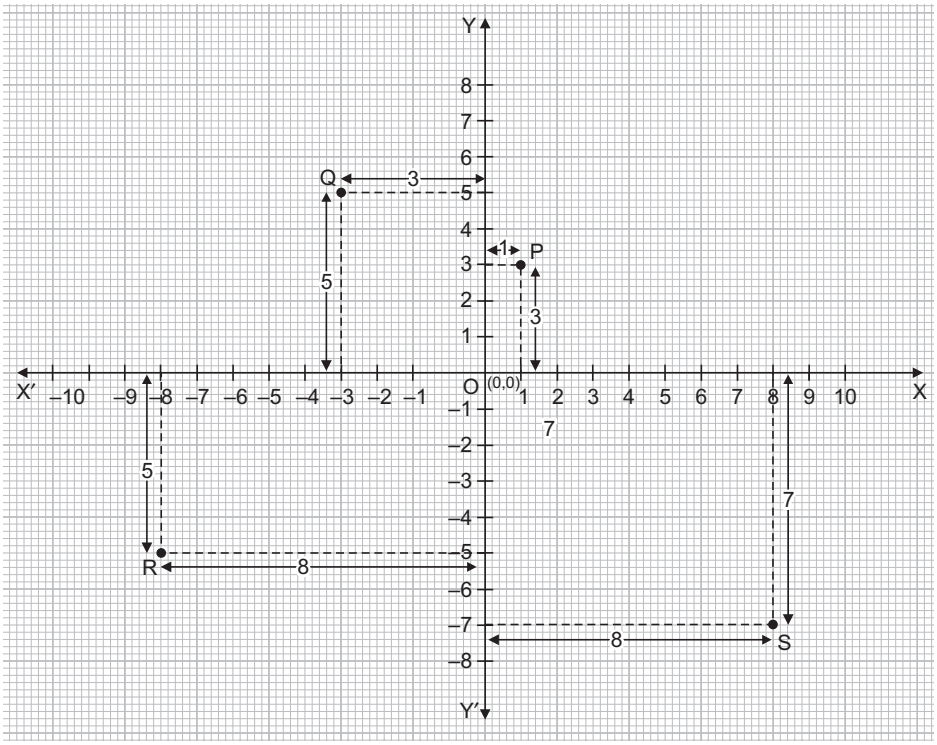
   A(1, 1), B(1, 0), C(0, 1), D(0, 0), E(0, –1), F(–1, 0), G(0, 5), H(–7, 0), I(3, 3).

Name: ..... Teacher's signature: .....

Class: IX Date: .....

9. A point lies on the x-axis at a distance of 9 units from the y-axis. What are its coordinates? What will be the coordinates if it lies on y-axis at a distance of -9 units from x-axis?

10. Write down (*i*) abscissa (*ii*) ordinates and (*iii*) coordinates of the points P, Q, R and S in the given figure.



ANSWERS

WORKSHEET 3

1. (*i*) *x*-axis (*ii*) *y*-axis (*iii*) *y*-axis (*iv*) *x*-axis
2. (*i*) I quadrant (*ii*) II quadrant (*iii*) III quadrant (*iv*) IV quadrant
3. (*i*) False (*ii*) False (*iii*) False (*iv*) False (*v*) True
4. M(–6, 0) and N(0, 2)
5. (*i*) B(–5, 2), C(–2, –3), E(3, –1) (*ii*) F (*iii*) 1 (*iv*) 0
6. Trapezium
7. (*i*) Collinear (*ii*) Not Collinear (*iii*) Collinear
8. C, D, E, G
9. (9, 0), (0, –7)
10. (*i*) 1, –3, –8, 8 (*ii*) 3, 5, –5, –7 (*iii*) P(1, 3), Q(–3, 5), R(–8, –5), S(8, –7)