

CHAPTER-7  
COORDINATE GEOMETRY

**EXERCISE - 7.1**

1. The distance of the point  $\mathbf{P}(2, 3)$  from the x-axis is
  - (a) 2
  - (b) 3
  - (c) 1
  - (d) 5
2. The distance between the points  $\mathbf{A}(0, 6)$  and  $\mathbf{B}(0, -2)$  is
  - (a) 6
  - (b) 8
  - (c) 4
  - (d) 2
3. The distance of the point  $\mathbf{P}(-6, 8)$  from the origin is
  - (a) 8
  - (b)  $2\sqrt{7}$
  - (c) 10
  - (d) 6
4. The distance between the points  $(0, 5)$  and  $(-5, 0)$  is
  - (a) 5
  - (b) 5
  - (c) 5
  - (d) 10
5.  $\mathbf{AOBC}$  is a rectangle whose three vertices are vertices  $\mathbf{A}(0, 3)$ ,  $\mathbf{O}(0, 0)$  and  $\mathbf{B}(5, 0)$ .  
The length of its diagonal is

- (a) 5
  - (b) 3
  - (c) 34
  - (d) 4
6. The perimeter of a triangle with vertices  $(0, 4)$ ,  $(0, 0)$  and  $(3, 0)$  is
- (a) 5
  - (b) 12
  - (c) 11
  - (d) 7
7. The area of a triangle with vertices  $\mathbf{A}(3, 0)$ ,  $\mathbf{B}(7, 0)$  and  $\mathbf{C}(8, 4)$  is
- (a) 14
  - (b) 28
  - (c) 8
  - (d) 6
8. The points  $(-4, 0)$ ,  $(4, 0)$ ,  $(0, 3)$  are the vertices of
- (a) right triangle
  - (b) isosceles triangle
  - (c) equilateral triangle
  - (d) scalent triangle
9. The point which divides the line segment joining the points  $\mathbf{P}(7, -6)$  and  $(3, 4)$  in ratio  $1 : 2$  internally lies in the
- (a) I quadrant
  - (b) II quadrant
  - (c) III quadrant
  - (d) IV quadrant
10. The point which lies on the perpendicular bisector of the line segment joining the points  $\mathbf{A}(-2, -5)$  and  $\mathbf{B}(2, 5)$  is

- (a)  $(0, 0)$
  - (b)  $(0, 2)$
  - (c)  $(2, 0)$
  - (d)  $(-2, 0)$
11. The fourth vertex **D** of a parallelogram **ABCD** whose three vertices are **A** $(-2, 3)$ , **B** $(6, 7)$  and **C** $(8, 3)$  is
- (a)  $(0, 1)$
  - (b)  $(0, -1)$
  - (c)  $(-1, 0)$
  - (d)  $(1, 0)$
12. If the point **P** $(2, 1)$  lies on the line segment joining points **A** $(4, 2)$  and **B** $(8, 4)$ , then
- (a)  $\mathbf{AP} = \frac{1}{3}\mathbf{AB}$
  - (b)  $\mathbf{AP} = \mathbf{PE}$
  - (c)  $\mathbf{PB} = \frac{1}{3}\mathbf{AB}$
  - (d)  $\mathbf{AP} = \frac{1}{2}\mathbf{AB}$
13. If  $\mathbf{P} \frac{a}{3}$  is the mid-point of the line segment joining the points **Q** $(-6, 5)$  and  $(-2, 3)$ , then the value of a is
- (a)  $-4$
  - (b)  $-12$
  - (c)  $12$
  - (d)  $-6$
14. The perpendicular bisector of the line segment joining the points **A** $(1, 5)$  and **B** $(4, 6)$  cuts the y-axis at
- (a)  $(0, 13)$
  - (b)  $(0, -13)$
  - (c)  $(0, 12)$

- (d)  $(13, 0)$
15. The coordinates of the point which is equidistant from the three vertices of the **AOB** as shown in the Fig. 7.1 is
- (a)  $(x, y)$   
 (b)  $(y, x)$   
 (c)  $(\frac{x}{2}, \frac{y}{2})$   
 (d)  $(\frac{y}{2}, \frac{x}{2})$
16. A circle drawn with origin as the centre passes through  $(\frac{13}{2}, 0)$ . The point which does not lie in the interior of the circle is
- (a)  $(\frac{-3}{4}, 1)$   
 (b)  $(2, \frac{7}{3})$   
 (c)  $(5, \frac{-1}{2})$   
 (d)  $(-6, \frac{-5}{2})$
17. A line intersects the y-axis and x-axis of the points **P** and **Q**, respectively. If  $(2, 5)$  is the mid-point of **PQ**, then the coordinates of **P** and **Q** are, respectively
- (a)  $(0, -5)$  and  $(2, 0)$   
 (b)  $(0, -10)$  and  $(-4, 0)$   
 (c)  $(0, 4)$  and  $(-10, 0)$   
 (d)  $(0, -10)$  and  $(4, 0)$
18. The area of a triangle with vertices  $(a, b + c)$ ,  $(b, c + a)$  and  $(c, a + b)$  is
- (a)  $(a + b + c)^2$   
 (b) 0  
 (c)  $a + b + c$   
 (d)  $abc$
19. If the distance between the points  $(4, P)$  and  $(1, 0)$  is 5, then the value of **P** is
- (a) 4 only

(b) +4 only

(c) -4 only

(d) 0

20. If the points  $\mathbf{A}(1, 2)$ ,  $\mathbf{O}(0, 0)$  and  $\mathbf{C}(a, b)$  are collinear, then

(a)  $a=b$

(b)  $a=2b$

(c)  $2a=b$

(d)  $a=-b$

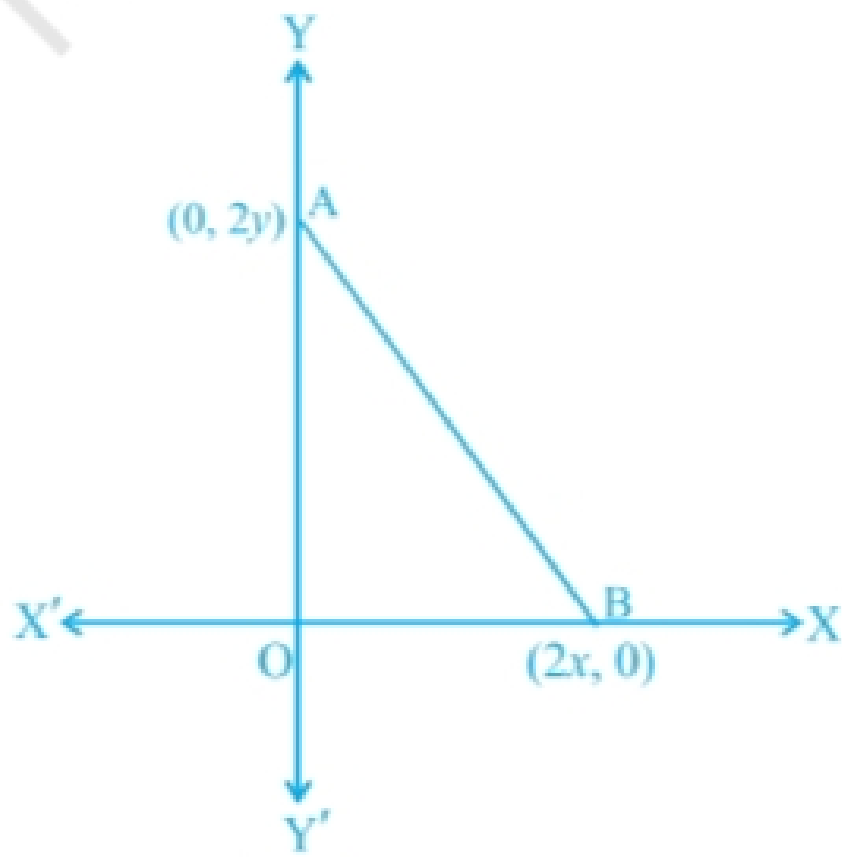


Fig. 7.1

Figure 1