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 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 vFig. 7.1 is

    (a) (x, y)
    (b) (y, x)
    (c) $\left(\frac{x}{2}, \frac{y}{2}\right)$
    (d) $\left(\frac{y}{2}, \frac{x}{2}\right)$

16. A circle drawn with origin as the centre passes through $\left(\frac{13}{2}, 0\right)$. The point which does not lie in the interior of the circle is

    (a) $\left(\frac{-3}{4}, 1\right)$
    (b) $\left(2, \frac{7}{3}\right)$
    (c) $\left(5, \frac{-1}{2}\right)$
    (d) $\left(-6, \frac{-5}{2}\right)$

17. A line interects the y-axis and x-axis of the points **P** and **Q**, respectiveiy.lf $(2, 5)$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 $\mathbf{A}(1,2), \mathbf{0}(0,0)$ and $\mathbf{C}(a,b)$ are collinear,then

(a) a=b

(b) a=2b

(c) 2a=b

(d) a=-b

Fig. 7.1
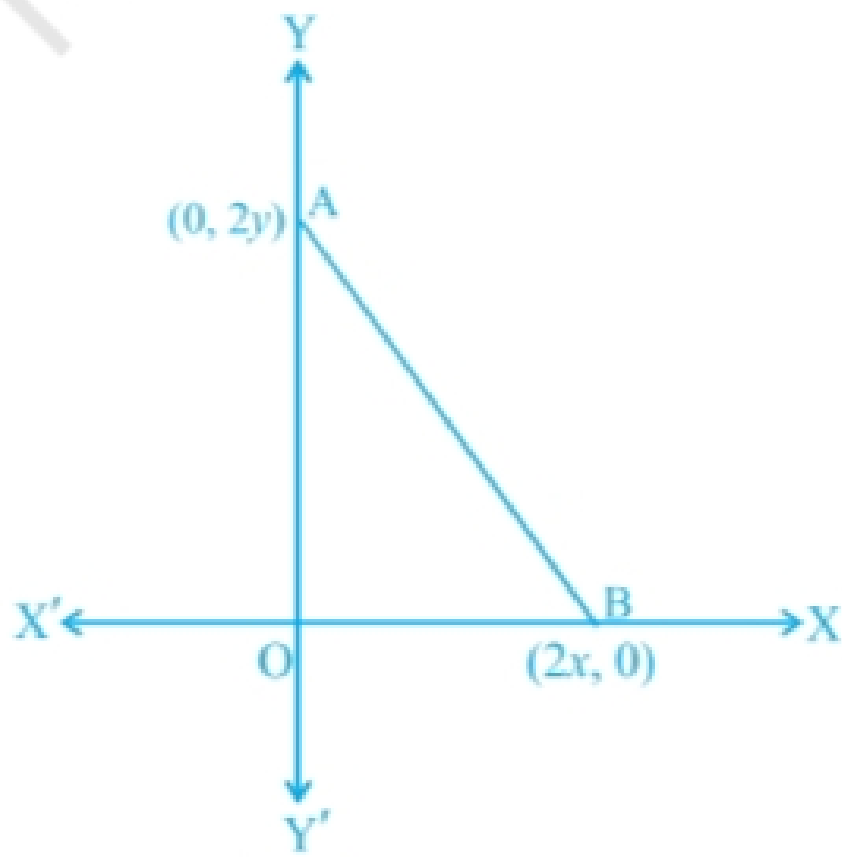
Figure 1