MATHS
CLASS X
5 Coordinate Geometry

1. Find the ratio in which the line segment joining the points $(-3,10)$ and $(6,-8)$ is internally divided by $(-1,6)$

(1) 7:2 (2) 3:4 (3) 2:7 (4) 5:3

2. If the points $(0,0)$, $(a,0)$ and $(0,b)$ are collinear then

(1) $a=b$ (2) $a+b=0$ (3) $ab=0$ (4) $a\neq b$

3. If the mid-point of the line segment joining $A\left(\frac{x}{2},\frac{y+1}{2}\right)$ and $B(x+1,y-3)$ is $C(5,-2)$ then find the values of x, y

(1) $(6,-1)$ (2) $(-6,1)$ (3) $(-2,1)$ (4) $(3,5)$

4. The area of triangle formed by the points $(a,b+c)$, $(b,c+a)$ and $(c,a+b)$ is

(1) $a+b+c$ (2) abc (3) $(a+b+c)^2$ (4) 0

5. The four vertices of a quadrilateral are $(1,2)$, $(-5,6)$, $(7,-4)$ and $(k,-2)$ taken in order. If the area of quadrilateral is zero then find the value of k.

(1) -4 (2) -2 (3) 6 (4) 3

6. Find the equation of the line passing through the point $(5,3)$ which is parallel to the y axis is

(1) $y=5$ (2) $y=3$ (3) $x=5$ (4) $x=3$

7. Find the slope of the line $2y=x+8$

(1) $\frac{1}{2}$ (2) 1 (3) 8 (4) 2

8. Find the value of p, given that the line $\frac{y}{2} = x - p$ passes through the point $(-4, 4)$ is

(1) -4 (2) -6 (3) 0 (4) 8

9. Find the slope and the y-intercept of the line $3y-\sqrt{3}x+1=0$ is

(1) $\frac{1}{\sqrt{3}}, \frac{-1}{3}$ (2) $-\frac{1}{\sqrt{3}}, \frac{-1}{3}$ (3) $\sqrt{3}, 1$ (4) $-\sqrt{3}, 3$

10. Find the value of 'a' if the lines $7y=ax+4$ and $2y=3-x$ are parallel.

(1) $a=\frac{7}{2}$ (2) $a=-\frac{2}{7}$ (3) $a=\frac{2}{7}$ (4) $a=-\frac{7}{2}$

11. A line passing through the point $(2,2)$ and the axes enclose an area α . The intercepts on the axes made by the line are given by the roots of

(1) $x^2-2\alpha x+\alpha=0$ (2) $x^2+2\alpha x+2\alpha=0$

(3) $x^2-\alpha x+2\alpha=0$ (4) none of these

12. Find the equation of the line passing through the point $(0,4)$ and is parallel to the line $3x+5y+15=0$ is

(1) $3x+5y+15=0$ (2) $3x+5y-20=0$

(3) $2x+7y-20=0$ (4) $4x+3y-15=0$

13. In a right angled triangle ABC, right angled at B, if the side BC is parallel to x axis, then the slope of AB *is*

(1) $\sqrt{3}$ (2) $\frac{1}{\sqrt{3}}$ (3) 1 (4) not defined

14. The y-intercept of the line $3x-4y+8=0$ is

(1) $-\frac{8}{3}$ (2) $\frac{3}{8}$ (3) 2 (4) $\frac{1}{2}$

15. The lines $y=5x-3$, $y=2x+9$ intersect at A. The coordinates of A are (M)

(1) $(2,7)$ (2) $(2,3)$ (3) $(4,17)$ (4) $(-4,23)$