



MATHS

BOOKS - KALYANI MATHS (ASSAMESE ENGLISH)

Co-ordinator Geometry

Exercise

1. Find the areas of the triangle whose vertices are

$(4,4),(3,-2),(-3,16)$



Watch Video Solution

2. Find the area of the triangle whose vertices are

$(5,2),(-9,-3),(-3,-5)$



Watch Video Solution

3. Find the areas of the triangle whose vertices are

$(a, bc), (b, ca), (c, ab)$



Watch Video Solution

4. Find the area of the quadrilateral whose vertices, taken in order, are $(-4, -2), (-3, -5), (3, -2)$ and $(2, 3)$.



Watch Video Solution

5. Find the area of quadrilateral whose vertices taken in order are

$(-5,-3),(-4,-6),(-2,-11),(1,2)$



[Watch Video Solution](#)

6. Find the area of quadrilateral whose vertices taken in order are

$(1,0),(5,3),(2,7),(-2,4)$



[Watch Video Solution](#)

7. The co-ordinates of the vertices of $\triangle ABC$ are $A(4,1), B(-3,2)$ and $C(o,k)$. Given area of

$\Delta ABC = 12$ square unit. Find the value of k .



[Watch Video Solution](#)

8. If the vertices of a triangle are $(1, k)$, $(4, -3)$, $(-9, 7)$ and its area is 15 square unit, find the value of k .



[Watch Video Solution](#)

9. $A(0, 0)$, $B(6, 0)$, $C(4, 3)$ and $D(0, k)$ are the vertices of a quadrilateral $ABCD$. Find the value

of k if the area of quadrilateral is 14 sq.units.



[Watch Video Solution](#)

10. Prove that the points P,Q,R are collinear.

P(1,5) ,Q(3,14), R(-1,-4)



[Watch Video Solution](#)

11. Prove that the points P,Q,R are collinear.

P(1,4),Q(3,-2),R(-3,16)



[Watch Video Solution](#)

12. Prove that the points P,Q,R are collinear.

P(a, b+c), Q(b, c+a), R(c, a+b)



Watch Video Solution

13. If the points (a,1) ,(3,4) ,(5,5) are collinear
find a.



Watch Video Solution

14. If $(p+1, 1), (2p+1, 3), (2p+2, 2p)$ are collinear

prove that, $p = 2$ or $-\frac{1}{2}$



Watch Video Solution

15. For what value of p the points $(-5, 1)$,

$(1, p)$ and $(4, -2)$ are collinear.



Watch Video Solution

16. For what value of p the points $(2,1)$,
 $(p,-1)$ and $(-1,3)$ are collinear.



Watch Video Solution

17. If the points $(a,0)$, $(0,b)$ and $(1,1)$ are
collinear, then find the relation between a and
 b .



Watch Video Solution

18. If the points $(-3,9),(2,p),(4,-5)$ are collinear, prove that $p + 1 = 0$



Watch Video Solution

19. If the points $(8,1),(3,-4),(2,p)$ are collinear, prove that $p + 5 = 0$



Watch Video Solution

20. If the points $(p,0)$, $(0,q)$ and (x,y) are collinear, prove that $\frac{x}{p} + \frac{y}{q} = 1$.



[Watch Video Solution](#)

21. If D,E,F are the middle points of sides BC,CA,AB respectively of a triangle whose vertices are $A(-1,5)$, $B(3,1)$, $C(5,7)$. show that,
 $\Delta ABC = 4\Delta DEF$



[Watch Video Solution](#)

22. The vertices of ΔABC are $A(2,3)$, $B(4,-1)$ and $C(1,2)$, Find the length of the perpendicular AD on BC.



[Watch Video Solution](#)

23. The co-ordinates of A, B, C, D are $A(6,3)$, $B(-3,5)$, $C(4,-2)$ and $D(x,3x)$ respectively and

$$\frac{\text{Area}(\Delta DBC)}{\text{Area}(\Delta ABC)} = \frac{1}{2}, \text{ find } x.$$



[Watch Video Solution](#)

24. Write the distance between $(0,0)$ and $(3,4)$.



[Watch Video Solution](#)

25. Find the distance between following pair of points: $(a \cos \theta, a \sin \theta), (0, 0)$



[Watch Video Solution](#)

26. Write the mid-point of $(a,0),(-a,-b)$



[Watch Video Solution](#)

27. If the points $(a,0)$, $(0,b)$ and $(1,1)$ are collinear, then find the value of $\frac{1}{a} + \frac{1}{b}$



[Watch Video Solution](#)

28. The mid-point of the line joining the points $(-6,5)$ and $(-2,3)$ is $\left(\frac{a}{3}, 4\right)$. Find a .



[Watch Video Solution](#)

29. Fill in the blank

The co-ordinates of any point on x-axis are in the form _____.



Watch Video Solution

30. Fill in the blank

The co-ordinates of any point on y-axis are in the form _____.



Watch Video Solution

31. Fill in the blank

The distance of the point (a,b) from the origin is _____.



[Watch Video Solution](#)

32. What is the co-ordinate of origin?



[Watch Video Solution](#)

33. Fill in the blank

If three points are collinear, the area of the triangle formed is _____.



Watch Video Solution

34. If three consecutive vertices of a parallelogram ABCD are $A(1,-2), B(3,6), C(5,10)$, then find the fourth vertex D.

A. (2,3)

B. (3,2)

C. (-3,-2)

D. (-2,-3)

Answer:



Watch Video Solution

35. The distance of the point $(-a,b)$ from origin is,

A. $\sqrt{b^2 - a^2}$

B. $\sqrt{a^2 + b^2}$

C. $b-a$

D. None

Answer:



Watch Video Solution

36. The points $(0,0),(-2,0),(3,0)$

A. are collinear

B. lie on x-axis

C. lie on y-axis

D. none

Answer:



Watch Video Solution

37. In what ratio does the point $P(1,2)$ divide the line segment of $A(-2,1)$ and $B(7,4)$.

A. 1 : 2

B. 2 : 3

C. 3 : 2

D. 2: 1

Answer:



Watch Video Solution

38. In what ratio the x-axis divides the joints of
P(-4,2)and Q(8,3)

A. 2: 3

B. 3: 2

C. - 2: 3

D. $-3:2$

Answer:



Watch Video Solution