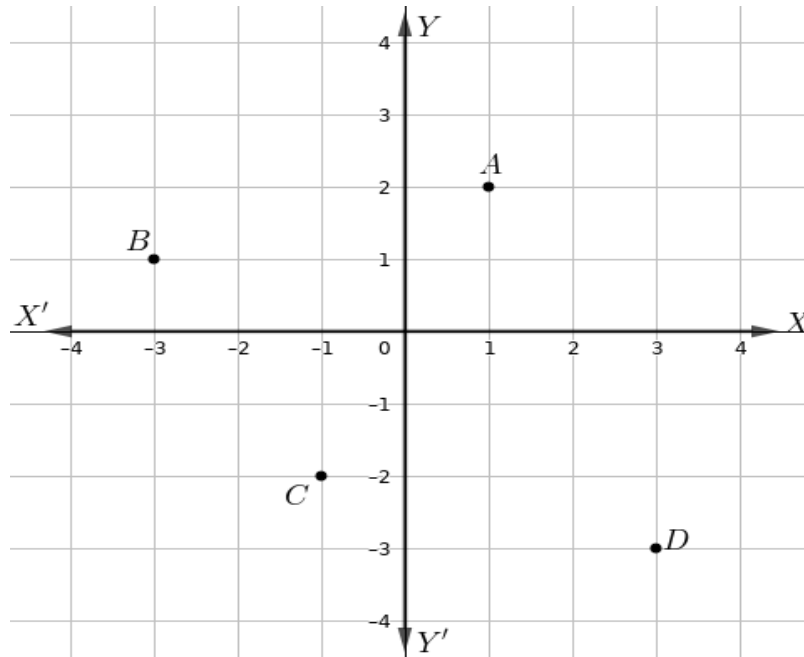


WANDOOR GANITHAM – S.S.L.C STUDY MATERIAL 2021

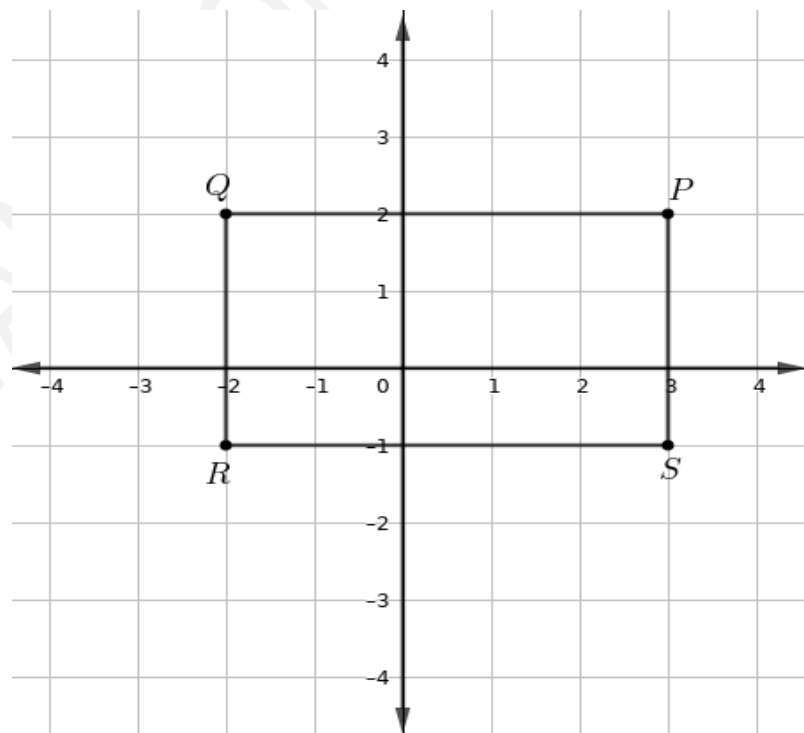
FOCUS AREA - QUESTION BANK - COORDINATES

1



Write the coordinates of the points A, B, C and D from the figure .

2



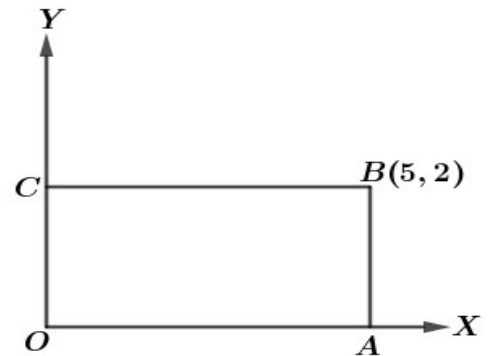
Write the coordinates of the vertices of the rectangle PQRS .

3	<p>a) What are the coordinates of the origin ?</p> <p>b) What is the y coordinate of the points on the x -axis ?</p> <p>c) Write the coordinates of another two points on the line passing through (1 , 2) parallel to the x axis ?</p>										
4	<p>a) What is the y coordinate of the points on the x- axis ?</p> <p>b) Write the coordinates of another two points on the line passing through (3 , 5) parallel to the y- axis ?</p>										
5	<p>Complete the following table using the following points .</p> <table border="1" data-bbox="212 719 1457 1025"> <tr> <td data-bbox="212 719 1038 775">Origin</td> <td data-bbox="1038 719 1457 775">.....</td> </tr> <tr> <td data-bbox="212 775 1038 831">Point on the x- axis other than the origin</td> <td data-bbox="1038 775 1457 831">.....</td> </tr> <tr> <td data-bbox="212 831 1038 887">Point on the y- axis other than the origin</td> <td data-bbox="1038 831 1457 887">.....</td> </tr> <tr> <td data-bbox="212 887 1038 943">Points on a line parallel to the x- axis</td> <td data-bbox="1038 887 1457 943">.....</td> </tr> <tr> <td data-bbox="212 943 1038 1025">Points on a line parallel to the y- axis</td> <td data-bbox="1038 943 1457 1025">.....</td> </tr> </table>	Origin	Point on the x- axis other than the origin	Point on the y- axis other than the origin	Points on a line parallel to the x- axis	Points on a line parallel to the y- axis
Origin										
Point on the x- axis other than the origin										
Point on the y- axis other than the origin										
Points on a line parallel to the x- axis										
Points on a line parallel to the y- axis										
6	<p>A line is drawn through the point (3 , 2) parallel to the x-axis .</p> <p>a) Write the coordinates of the point at which the this line cuts the y- axis ?</p> <p>b) If (5 , k) is a point on this line , what is the value of k ?</p>										
7	<p>A line is drawn through the point (4 , 1) parallel to the y-axis .</p> <p>a) Write the coordinates of the point at which the this line cuts the x- axis ?</p> <p>b) If (m , 4) is a point on this line , what is the value of m ?</p>										
8	<p>A circle is drawn with origin as centre . The circle cuts the x axis at the point (3 , 0)</p> <p>a) What is the radius of the circle ?</p> <p>b) Write the coordinates of another point at which the circle cuts the x-axis ?</p> <p>c) Write the coordinates of the points at which the circle cuts the y-axis ?</p>										
9	<p>A circle is drawn with origin as centre . The circle cuts the y- axis at the point (0 , 6)</p> <p>a) What is the radius of the circle ?</p> <p>b) Write the coordinates of another point at which the circle cuts the y-axis ?</p> <p>c) Write the coordinates of the points at which the circle cuts the x-axis ?</p>										

10 In the figure OABC is a rectangle .

The coordinates of B are $(5, 2)$.

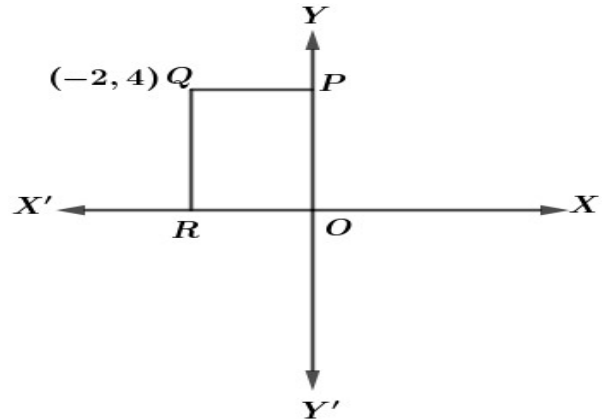
- a) What are the coordinates of O ?
- b) What are the coordinates of A ?
- c) What are the coordinates of C ?



11 In the figure OPQR is a rectangle .

The coordinates of Q are $(-2, 4)$.

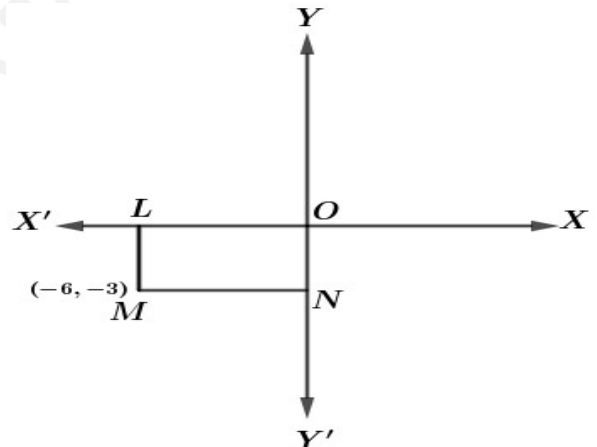
- a) What are the coordinates of O ?
- b) What are the coordinates of P ?
- c) What are the coordinates of R ?



12 In the figure OLMN is a rectangle .

The coordinates of M are $(-6, -3)$.

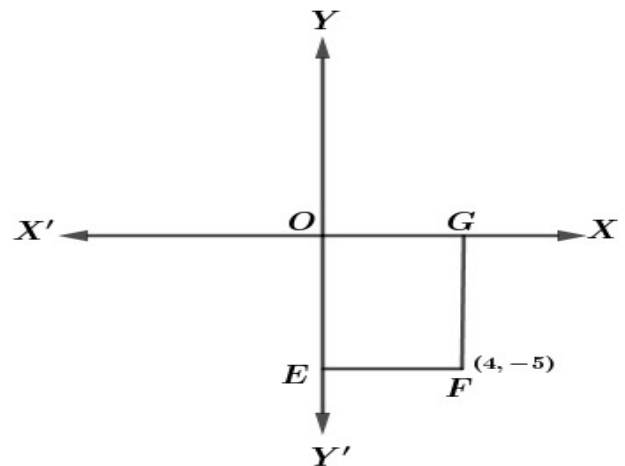
- a) What are the coordinates of O ?
- b) What are the coordinates of L ?
- c) What are the coordinates of N ?



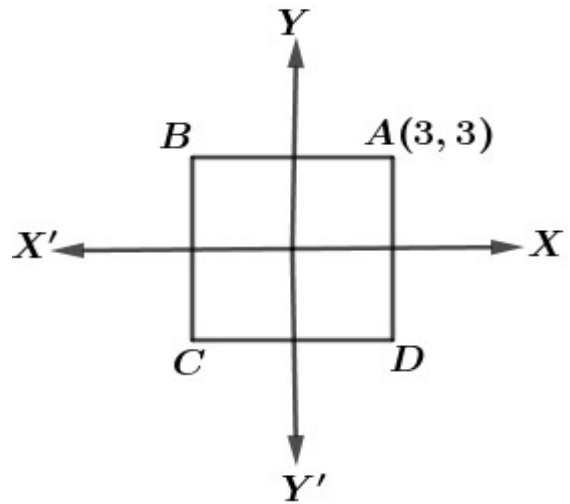
13 In the figure OEFG is a rectangle .

The coordinates of F are $(4, -5)$

- a) What are the coordinates of O ?
- b) What are the coordinates of G ?
- c) What are the coordinates of E ?

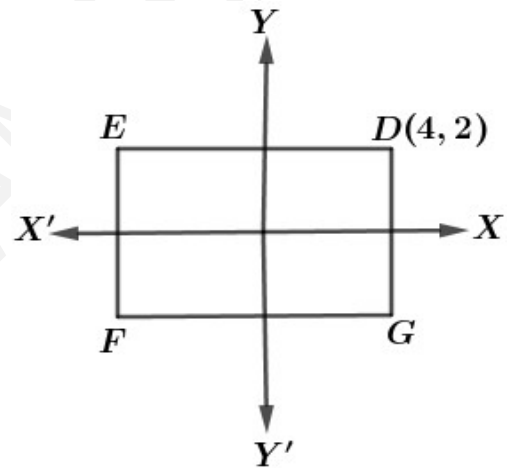


14 In the figure ABCD is a square and its sides are parallel to the axes . Origin is the midpoint of the square . The coordinates of A are (3 , 3) .



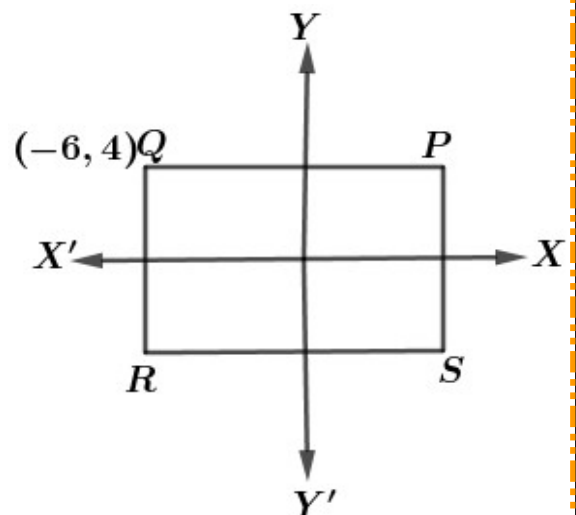
- What are the coordinates of B ?
- What are the coordinates of C ?
- What are the coordinates of D ?

15 In the figure DEFG is a rectangle and its sides are parallel to the axes . Origin is the midpoint of the rectangle . The coordinates of D are (4 , 2) .



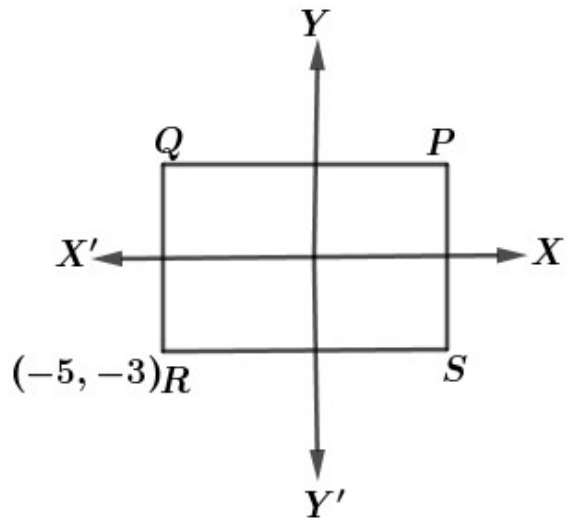
- What are the coordinates of E ?
- What are the coordinates of F ?
- What are the coordinates of G ?

16 In the figure PQRS is a rectangle and its sides are parallel to the axes . Origin is the midpoint of the rectangle . The coordinates of Q are (- 6 , 4) .



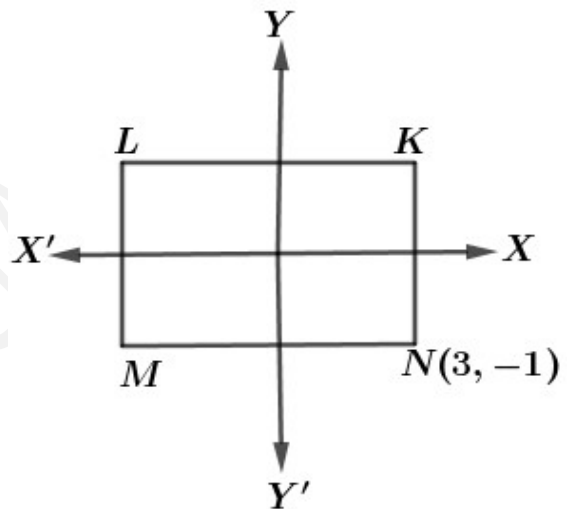
- What are the coordinates of P ?
- What are the coordinates of R ?
- What are the coordinates of S ?

17 In the figure PQRS is a rectangle and its sides are parallel to the axes . Origin is the midpoint of the rectangle . The coordinates of R are $(-5, -3)$.



- What are the coordinates of Q ?
- What are the coordinates of P ?
- What are the coordinates of S ?

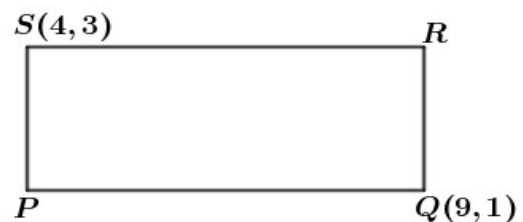
18 In the figure KLMN is a rectangle and its sides are parallel to the axes . Origin is the midpoint of the rectangle . The coordinates of N are $(3, -1)$.



- What are the coordinates of K ?
- What are the coordinates of L ?
- What are the coordinates of M ?

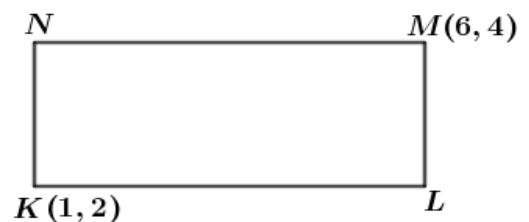
19 In the figure , the sides of the rectangle PQRS are parallel to the axes .

- What are the coordinates of P ?
- What are the coordinates of R ?



20 In the figure , the sides of the rectangle KLMN are parallel to the axes .

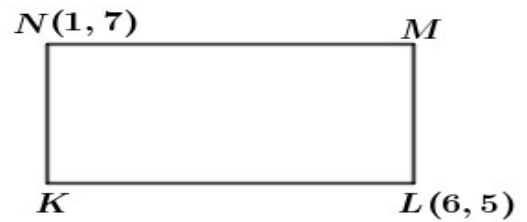
- What are the coordinates of N ?
- What are the coordinates of L ?



21 In the figure , the sides of the rectangle KLMN are parallel to the axes .

a) What are the coordinates of K ?

b) What are the coordinates of M ?

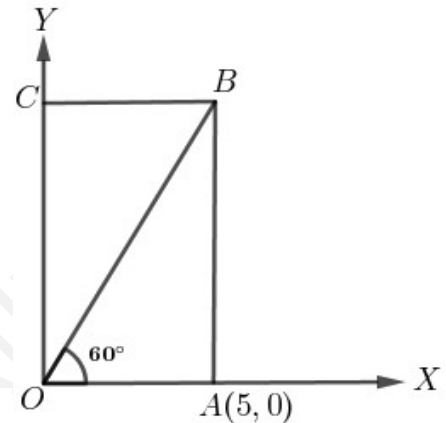


22 In the figure OABC is a rectangle .

The coordinates of A are $(5, 0)$. $\angle AOB = 60^\circ$

a) What are the lengths of the sides OA and AB ?

b) What are the coordinates of B and C ?

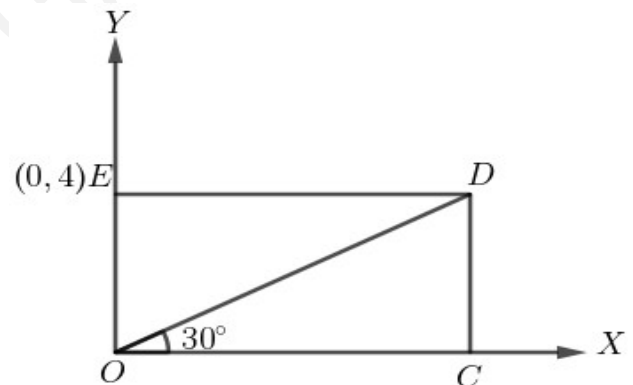


23 In the figure OCDE is a rectangle . The coordinates of E are $(0, 4)$.

$\angle COD = 30^\circ$

a) What are the lengths of the sides OE and OC ?

b) What are the coordinates of C and D ?



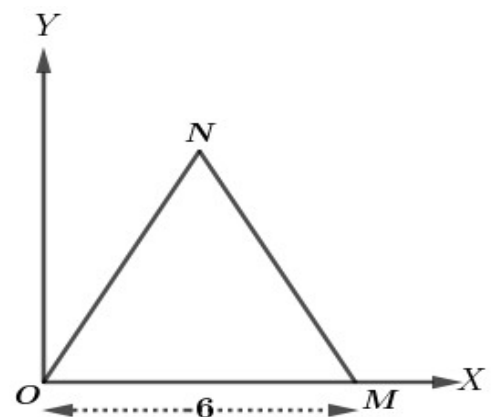
24 In the figure OMN is an equilateral triangle .

The length of its side is 6 units .

a) What are the coordinates of O ?

b) What are the coordinates of M ?

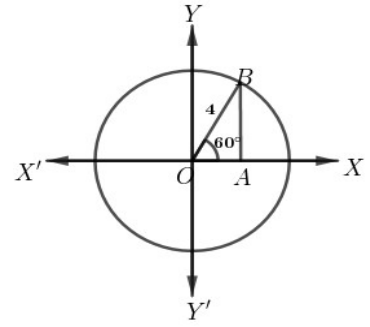
c) What are the coordinates of N ?



25 In the figure line AB is perpendicular to the x - axis

$OB=4\text{ cm}$, $\angle AOB=60^\circ$

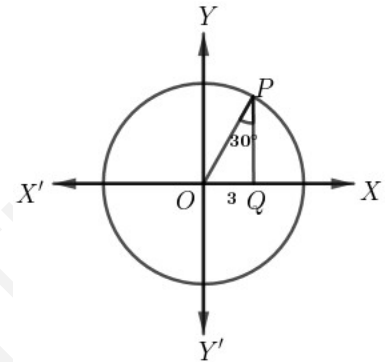
- a) What are the coordinates of O ?
- b) What are the lengths of OA and AB ?
- c) What are the coordinates of B ?



26 In the figure line PQ is perpendicular to the x -axis

$OQ=3\text{ cm}$, $\angle OPQ=30^\circ$

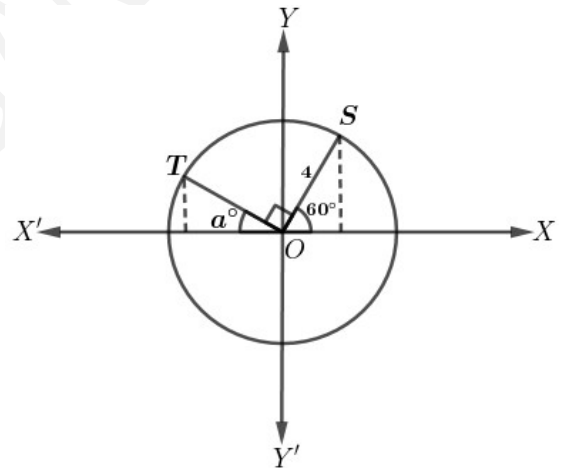
- a) What are the coordinates of O ?
- b) What are the lengths of OP and PQ ?
- c) What are the coordinates of P ?



27 In the figure origin is the centre of the circle , S and T are two points on it . The radii OT and OS are perpendicular to each other .

Radius of the circle is 4 .

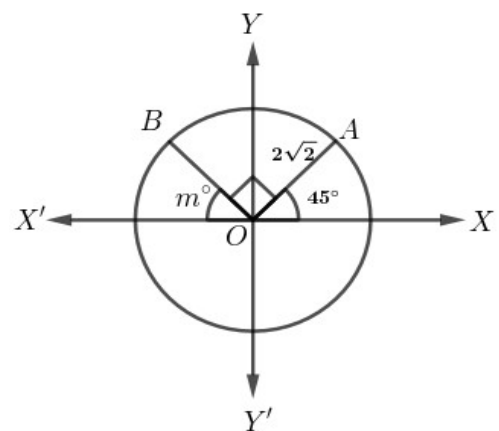
- a) What is the value of a ?
- b) What are the coordinates of S and T ?



28 In the figure origin is the centre of the circle , A and B are two points on it . The radii OA and OB are perpendicular to each other .

Radius of the circle is $2\sqrt{2}$.

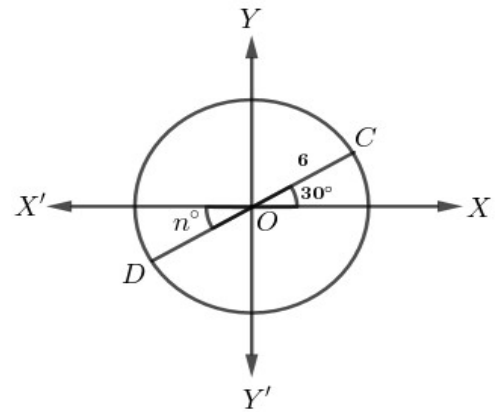
- a) What is the value of m ?
- b) What are the coordinates of A and B ?



29 In the figure origin is the centre of the circle , C and D are two points on it .

Radius of the circle is 6 .

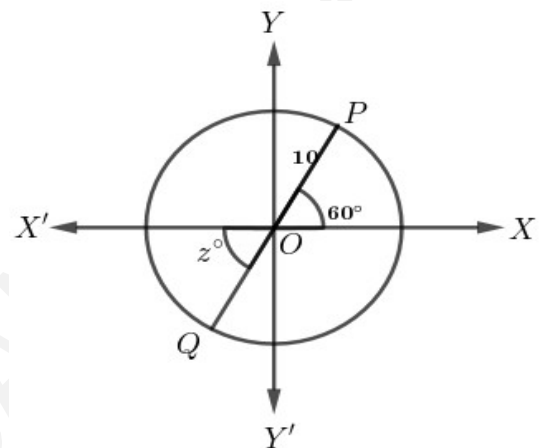
- What is the value of n ?
- What are the coordinates of C and D ?



30 In the figure origin is the centre of the circle , P and Q are two points on it .

Radius of the circle is 10 cm .

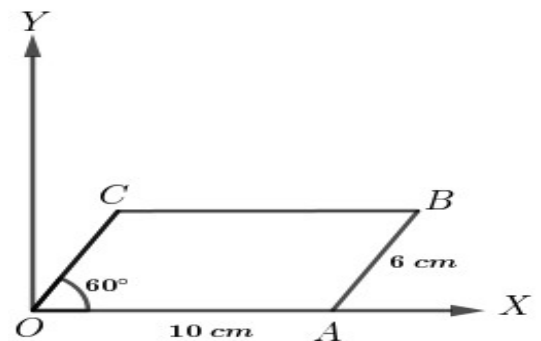
- What is the value of z ?
- What are the coordinates of P and Q ?



31 In the figure OABC is a parallelogram .

OA = 10 cm , AB = 6 cm . Area of the

- What is the distance between the sides OA and BC ?
- What are the coordinates of A, B, C ?



32 The vertices of triangle ABC are A (3 , 2) , B (4 , 9) and C (6 , 3)

- Compute the length of the sides of the triangle ?
- Prove that ABC is a right triangle ?

33 A circle is drawn with origin as centre and radius 5 .

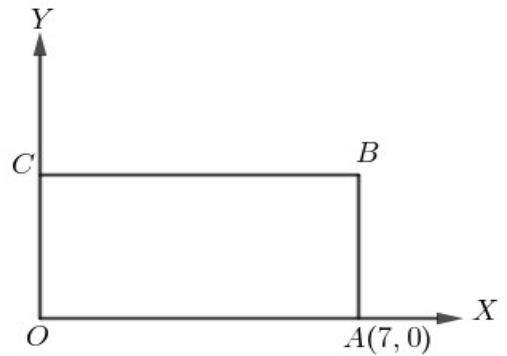
- Write the coordinates of the points at which the circle cut the x- axis ?
- Write the coordinates of the points at which the circle cut the y- axis ?
- What is the y coordinate of a point on this circle if its x coordinate is 3 ?

34	<p>A circle is drawn with origin as centre and radius 10 .</p> <p>a) Write the coordinates of the points at which the circle cut the y- axis ?</p> <p>b) Write the coordinates of the points at which the circle cut the x - axis ?</p> <p>c) If (m , n) is a point on this circle prove that $m^2 + n^2 = 100$?</p>
35	<p>A circle is drawn with origin as centre and radius 7 .</p> <p>a) Write the coordinates of the points at which the circle cut the y- axis ?</p> <p>b) Write the coordinates of the points at which the circle cut the x - axis ?</p> <p>c) If (p , q) is a point on this circle prove that $p^2 + q^2 = 49$?</p>
36	<p>The vertices of triangle ABC are A (1 , 9) , B (4 , 6) and C(3 , 11) .</p> <p>a) Compute the length of the sides of the triangle ?</p> <p>b) Prove that ABC is a right triangle ?</p>
37	<p>The vertices of triangle PQR are P (0 , 0) , Q(2 , 0) and R(1 , $\sqrt{3}$) .</p> <p>a) Compute the length of the sides of the triangle ?</p> <p>b) Prove that PQR is an equilateral triangle ?</p>
38	<p>The vertices of triangle DEF are D (1 , 3) , E (6 , 2) and F (4 , 5)</p> <p>a) Compute the length of the sides of the triangle ?</p> <p>b) Prove that DEF is an isosceles triangle ?</p>
39	<p>Perpendiculars are drawn from a point P to the axes , cut the x axis at (3 , 0) and the y axis at (0 , 2) .</p> <p>a) What are the coordinates of P ?</p> <p>b) Write down the coordinates of two more points on a line passing through the point P parallel to the y – axis ?</p> <p>c) Write down the coordinates of another point on a line passing through the point P perpendicular to the y – axis ?</p>

40 In the figure $OABC$ is a rectangle and its area is 21 sq.cm .

a) What are the length of the sides OA and OC ?

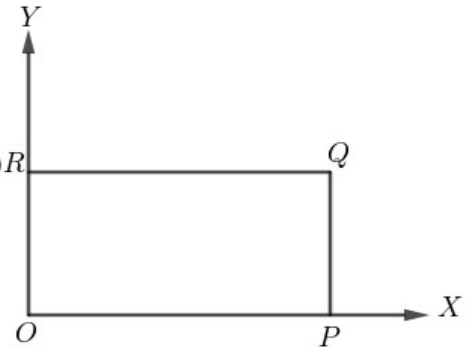
b) What are the coordinates of O , B and C ?



41 In the figure $OPQR$ is a rectangle and its area is 55 sq.cm .

a) What are the length of the sides OR and OP ? $(0, 5)R$

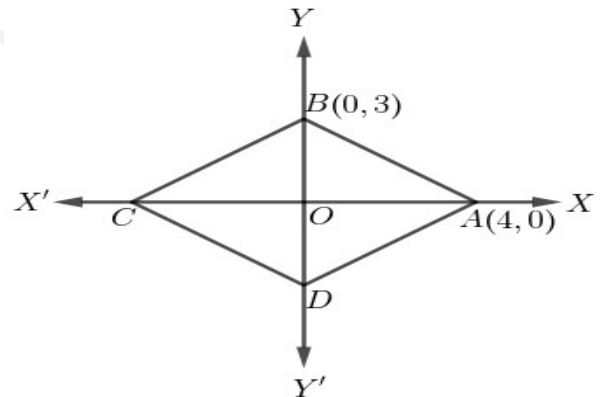
b) What are the coordinates of O , P and Q ?



42 In the figure $ABCD$ is a rhombus .

a) What are the length of the sides OA ,
 AC and BD ?

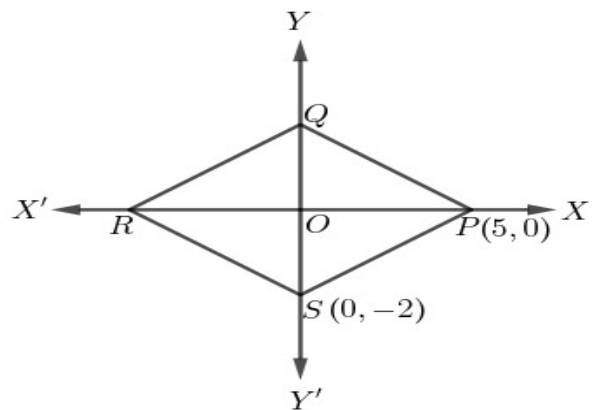
b) What are the coordinates of C and D ?



43 In the figure $OPQR$ is a rhombus .

a) What are the length of the sides OP , PR ,
and QS ?

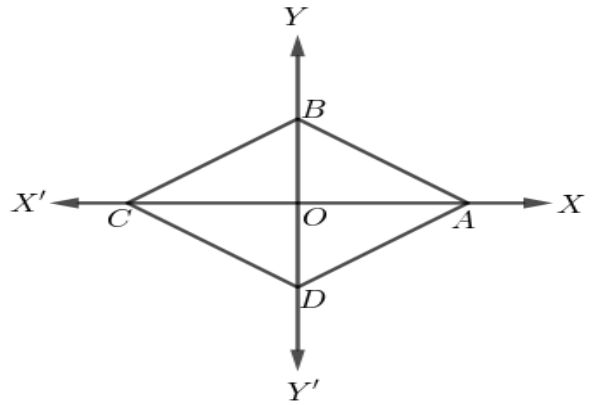
b) What are the coordinates of Q and R ?



44 In the figure ABCD is a rhombus .

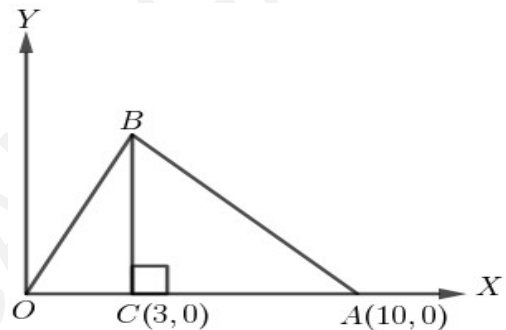
AC= 12cm , BD = 8 cm

- What is the length of OA ?
- What are the coordinates of the points A, B, C and D ?



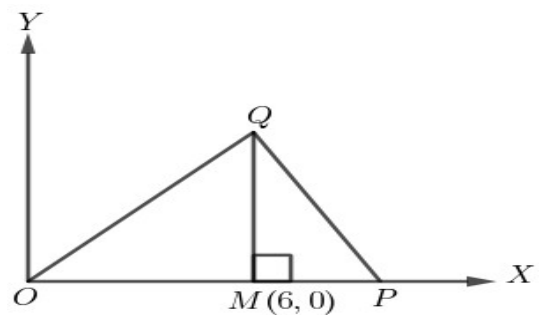
45 In the figure line BC is perpendicular to OA . Area of the triangle OAB is 20 sq.cm

- What are the coordinates of O ?
- What is the length of BC ?
- What are the coordinates of B ?



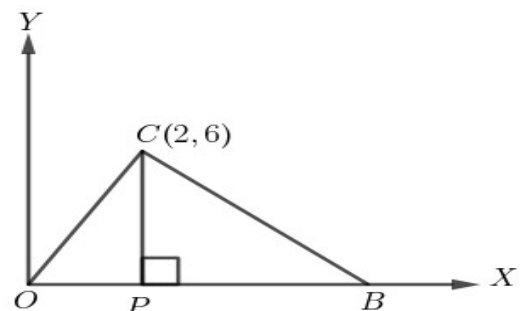
46 In the figure line QM is perpendicular to OP . Area of the triangle OPQ is 12 sq.cm

- What are the coordinates of the points O and P ?
- What is the length of QM ?
- What are the coordinates of Q ?



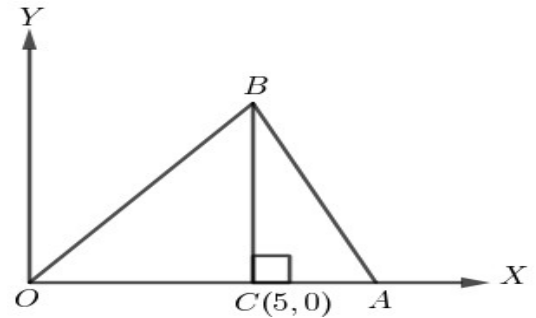
47 In the figure line CP is perpendicular to OB . Area of the triangle OBC is 27 sq.cm

- What are the coordinates of O and P ?
- What is the length of OB ?
- What are the coordinates of B ?



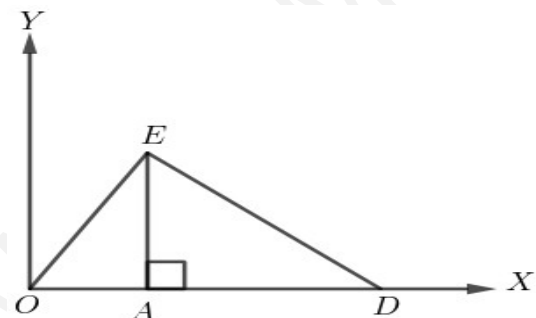
48 In the figure line BC is perpendicular to OA . Area of the triangle OAB is 21 sq.cm

- What are the coordinates of O and B ?
- What is the length of OA ?
- What are the coordinates of A ?



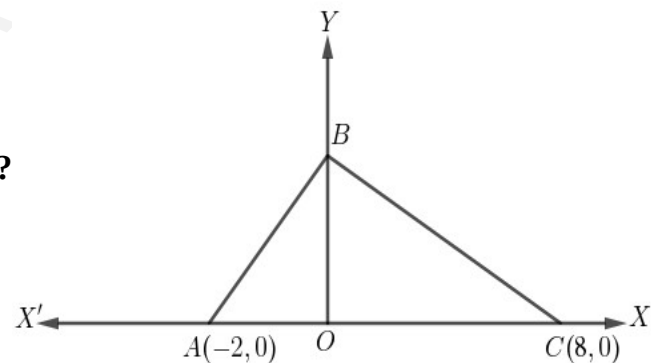
49 In the figure line AE is perpendicular to OD . $OA = 4$, $AD = 6$
Area of the triangle OAB is 30 sq.cm

- What are the coordinates of O, A and D ?
- What is the length of AE ?
- What are the coordinates of E ?



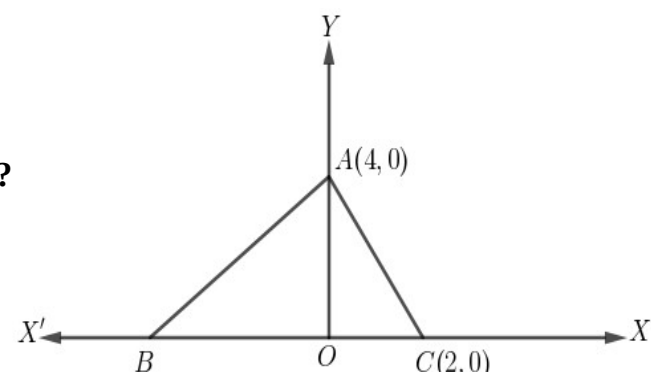
50 In the figure area of the triangle ABC is 25 sq.cm

- What are the coordinates of O ?
- What are the lengths of AC and OB ?
- What are the coordinates of B ?



51 In the figure area of the triangle ABC is 16 sq.cm

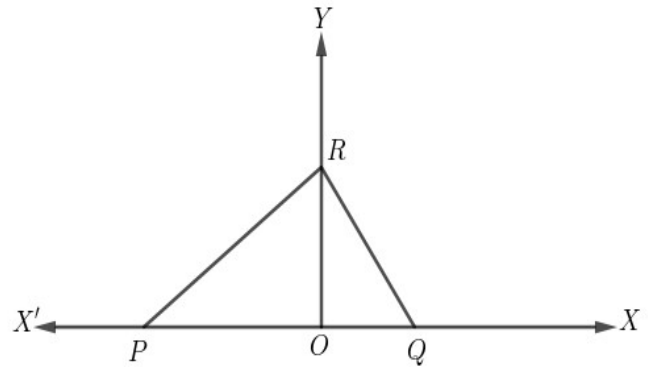
- What are the coordinates of O ?
- What are the lengths of OA and BC ?
- What are the coordinates of B ?



52 In the figure area of the triangle ABC is 30 sq.cm

OP = 8 cm , OR = 5cm

- What are the coordinates of O and R ?
- What is the length of PQ ?
- What are the coordinates of P and Q ?

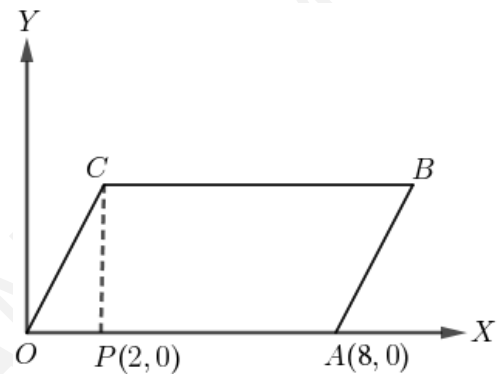


53 In the figure OABC is a parallelogram .

CP is the perpendicular from C to its opposite side

Area of the parallelogram is 40 sq.cm

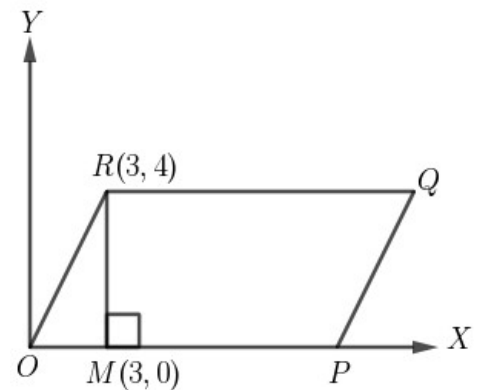
- What is the length of OA ?
- What is the distance between the sides OA and BC ?
- What are the coordinates of the vertices B and C ?



54 In the figure OPQR is a parallelogram .

Area of the parallelogram is 36 sq.cm

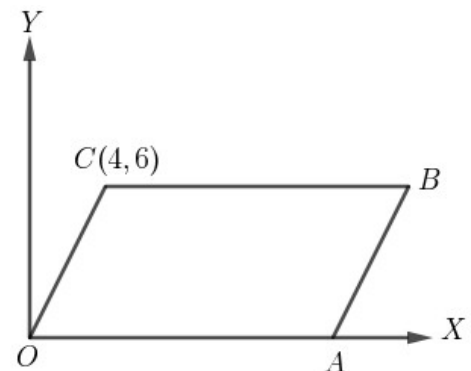
- What are the lengths of MR and OP ?
- What are the coordinates of P and Q ?



55 In the figure OABC is a parallelogram .

Area of the parallelogram is 60 sq.cm

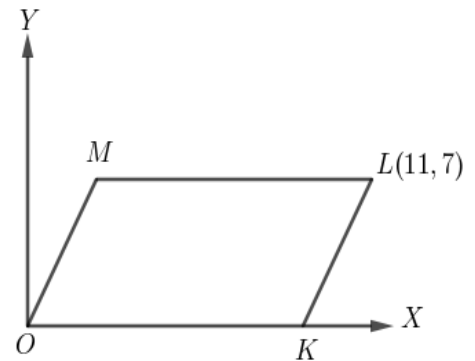
- What are the coordinates of O ?
- What is the distance between the sides OA and CB ?
- What is the length of OA ?
- What are the coordinates of A and B ?



56 In the figure OABC is a parallelogram .

Area of the parallelogram is 63 sq.cm

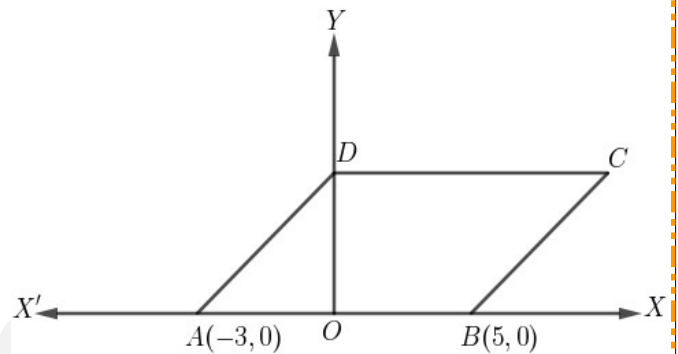
- What are the coordinates of O ?
- What is the distance between the sides OK and ML ?
- What is the length of OK ?
- What are the coordinates of K and M ?



57 In the figure ABCD is a

parallelogram and its area is 40 sq.cm

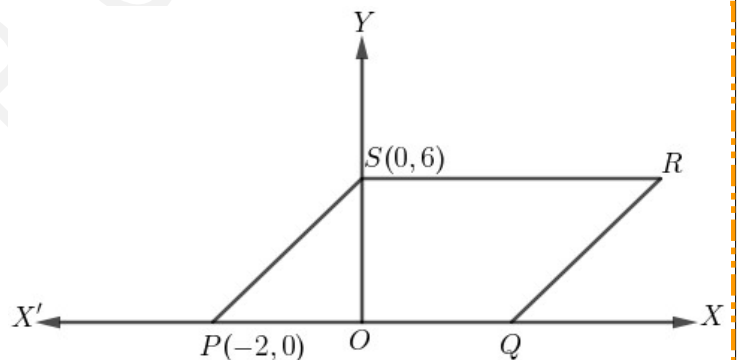
- What are the coordinates of O ?
- What are the lengths of OD and AB ?
- What are the coordinates of C and D ?



58 In the figure PQRS is a

parallelogram and its area is 54 sq.cm

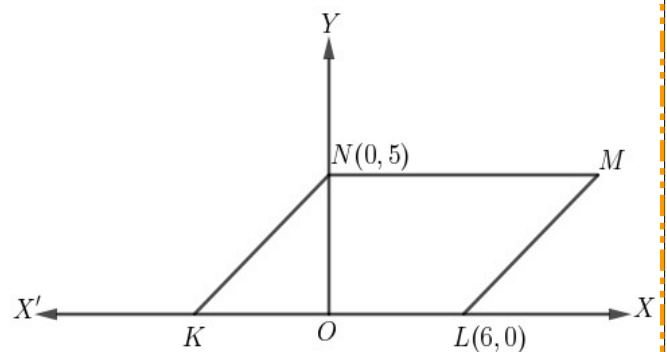
- What are the coordinates of O ?
- What are the lengths of OS and PQ ?
- What are the coordinates of Q and R ?



59 In the figure KLMN is a parallelogram

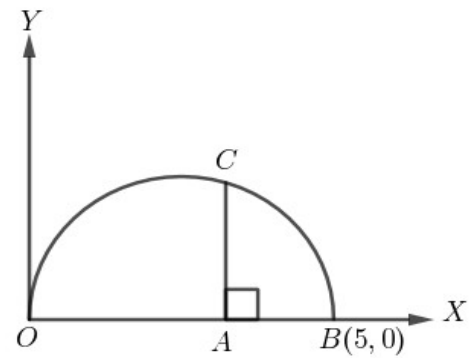
and its area is 50 sq.cm

- What are the coordinates of O ?
- What are the lengths of ON and KL ?
- What are the coordinates of K and M ?



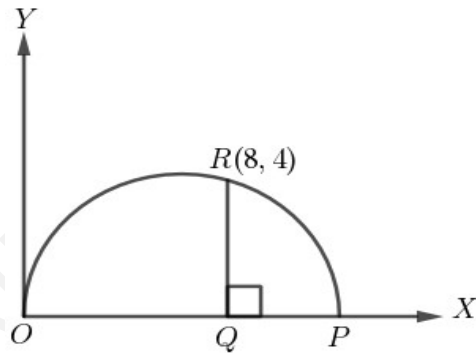
60 In the figure OB is the diameter of the semicircle .
The perpendicular drawn through A perpendicular to OB meets the semicircle at C . $OA = 4$.

- What are the coordinates of O and A ?
- What is the length of AC ?
- What are the coordinates of C ?



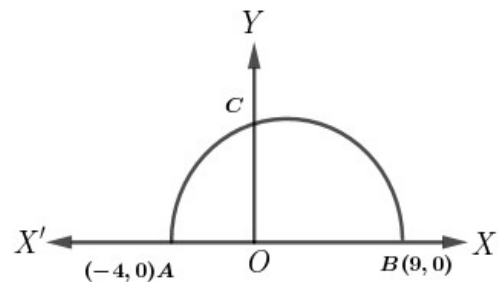
61 In the figure OP is the diameter of the semicircle .
The perpendicular drawn through Q perpendicular to OP meets the semicircle at R .

- What are the coordinates of O and Q ?
- What are the lengths of OQ , QR and QP ?
- What are the coordinates of P ?



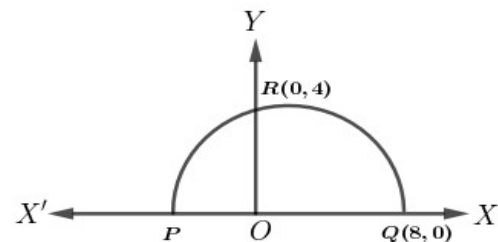
62 In the figure line with ends $A(-4, 0)$ and $B(9, 0)$ is the diameter of the semicircle .

- What are the coordinates of O ?
- What are the lengths of OA , OB and OC ?
- What are the coordinates of C ?



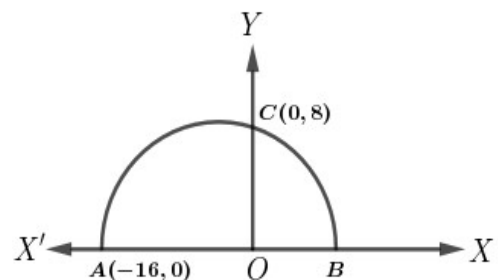
63 In the figure PQ is the diameter of the semicircle .

- What are the coordinates of O ?
- What are the lengths of OQ , OR and OP ?
- What are the coordinates of P ?



64 In the figure AB is the diameter .

- What are the coordinates of O ?
- What are the lengths of OA , OC and OB ?
- What are the coordinates of B ?



65	<p>A circle is drawn with centre $(3, 3)$ and radius 3 .</p> <p>a) What is the y- coordinate of a point on the x -axis ?</p> <p>b) What are the coordinates of the point at which the circle cuts the x-axis ?</p> <p>c) What are the coordinates of the point at which the circle cuts the y-axis ?</p>
66	<p>A circle is drawn with centre $(6, 6)$ and radius 6 .</p> <p>a) What is the x - coordinate of a point on the y -axis ?</p> <p>b) What are the coordinates of the point at which the circle cuts the y-axis ?</p> <p>c) What are the coordinates of the point at which the circle cuts the x-axis ?</p>
67	<p>A circle is drawn with centre $(3, 4)$. $(0, 0)$ is a point on it .</p> <p>a) What is the radius of the circle ?</p> <p>b) What is the y- coordinate of the points on the x -axis ?</p> <p>c) What are the coordinates of the point at which the circle cuts the x-axis ?</p>
68	<p>A circle is drawn with centre $(6, 8)$. $(0, 0)$ is a point on it .</p> <p>a) What is the radius of the circle ?</p> <p>b) What is the x- coordinate of the points on the y -axis ?</p> <p>c) What are the coordinates of the point at which the circle cuts the y-axis ?</p>
69	<p>A circle of radius $\sqrt{2}$ is drawn with the point $(1, 1)$ as centre .</p> <p>a) Check whether $(2, 0)$ is a point on this circle or not ?</p> <p>b) What are the coordinates of the point at which the circle cuts the y-axis ?</p>
70	<p>A circle of radius $\sqrt{5}$ is drawn with the point $(1, 1)$ as centre .</p> <p>a) Check whether $(0, 3)$ is a point on this circle or not ?</p> <p>b) What are the coordinates of the point at which the circle cuts the x-axis ?</p>
71	<p>A circle of radius 10 is drawn with the origin as centre .</p> <p>a) Write the coordinates of a point at which the circle cuts the x-axis ?</p> <p>b) Write the coordinates of a point at which the circle cuts the y -axis ?</p> <p>c) Check whether the point $(5, 9)$ is inside , out side or on the circle ?</p>

- 72 A circle of radius 5 is drawn with the point origin as centre .
- Write the coordinates of a point at which the circle cuts the x-axis ?
 - Write the coordinates of a point at which the circle cuts the y-axis ?
 - Check whether the point (2 , 3) is inside , out side or on the circle ?
- 73 a) Draw the axes and mark the points A (4 , 1) , B (-2 , 1) , C (-2 , - 1) and D (4 , -1)
- Write the most suitable name for the quadrilateral ABCD ?
 - Find its area ?
- 74 a) Draw the axes and mark the points A (5 , 3) , B (-1 , 3) , C (- 2 , - 1) and D (4 , -1)
- Write the most suitable name for the quadrilateral ABCD ?
 - Find its area ?
- 75 a) Draw the axes and mark the points A (2 , 4) , B (-1 , 3) , C (- 1 , - 1) and D (2 , -3)
- Write the most suitable name for the quadrilateral ABCD ?
 - Find its area ?
- 76 a) Draw the axes and mark the points A (4 , 0) , B (0 , 3) , C (- 4 , 0) and D (0 , -3)
- Write the most suitable name for the quadrilateral ABCD ?
 - Find its area ?
- 77 a) Draw the axes and mark the points A (6 , 1) , B (3 , 4) , C (0 , 4) and D (-1 , 1)
- Write the most suitable name for the quadrilateral ABCD ?
 - Find its area ?