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## ๙ையృวఱ๐: Coordinates

Activity: 1
$(5,2),(5,-3)$ are the points on a line. Find the coordinates of any two other points on this line.

Activity: 2

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

Among the points given above,
a) identify the points on the $x$ - axis .
b) identify the points on the $y$-axis .
c) identify the points which are not on any axis .

## Activity: 3

In the figure, OABC is a parallelogram. M is the mid point of $\mathrm{OA} . \mathrm{P}$ is the mid point of $O C . P Q$ is parallel to $O A$ and $M N$ is parallel to $O C$.


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$O A=8 \mathrm{~cm}, O P=2 \sqrt{ } 2 \mathrm{~cm}, \angle A O C=45^{\circ}$. Find the coordinates of the points $A, B, C, D, P, Q, M, N$.
Activity: 4
In the picture, the centre " $O$ " of the circle is the origin and $A, B, C, D, M, N$ are points on the circle. The coordinates of $A$ are (4, 0). If $\angle A O M=60^{\circ}$ and $O N \perp O M$, find the coordinates of B,C,D,M,N.


Class:X Subject:Maths Date:1/12/2020 Worksheet No:58

## LESSON :Co-ordinates

## Activity :1

(a) $(3,4)$ is a point on the line $A B$ parallel to $X$ - axis. Find any two points on $A B$.
(b) $(5,8)$ is a point on the line $C D$ parallel to $Y$ - axis. Find any two points on $C D$.
(c) Find the co-ordinates of a point on both lines

Activity:2


Sides of above rectangles are parallel to axes. Find the coordinates of other vertices of the rectangles.

## Activity :3

Without drawing coordinate axes, mark each pair of points below with left-right, top- bottom position correct. Find the other coordinates of the rectangles drawn with these as opposite vertices and sides parallel to the axes.
(a) $(1,2),(7,9)$
(b) $(3,4),(2,6)$
(c) $(4,9),(-6,1)$
(d) $(6,-3),(-4,-5)$

Activity :4
In the figure, the sides of the rectangle ABCD ,CEFG and FHIJ are parallel to axes. Find the coordinates of other vertices.

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| Class:X | Subject:Maths | Date:2/12/2020 |
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Lesson: Co-ordinates

## Activity 1



Based on the above figure complete the following table

| Points | Coordinates | Distance between the points |
| :---: | :---: | :---: |
| A,B | (2,0),(5,0) | $\|2-5\|=\|-3\|=3$ |
| A,E | .......... , .......... | ..................... |
| E,F | ......... , ........... | .................... |
| D,C | ........... , .......... | ................... |

## Activity 2

In the above figure $\mathrm{AB} \& \mathrm{CD}$ are parallel to the X axis and $\mathrm{AD} \& \mathrm{BC}$ are parallel to the Y axis. Also $\mathrm{A}(2,2), \mathrm{C}(6,4)$.
a) Write the coordinates of B and D.
b) Find the length of the sides $\mathrm{AB}, \mathrm{BC}, \mathrm{CD}, \mathrm{DA}$.
c) Find the length of the diagonals AC and BD .


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## Activity 3

In the figure the coordinates of the vertices of the quadrilateral ABCD are
$\mathrm{A}(2,0), \mathrm{B}(5,2), \mathrm{C}(4,5), \mathrm{D}(3,3)$
a) Find the length of the sides $\mathrm{AB}, \mathrm{BC}, \mathrm{CD}, \mathrm{DA}$.
b) Find the length of the diagonals.


## Activity 4

If the vertices of triangle ABC are $\mathrm{A}(3,1), \mathrm{B}(6,1), \mathrm{C}(6,4)$, then
a) find $\mathrm{AB}, \mathrm{BC}, \mathrm{CA}$
b) find $\mathrm{AB}^{2}, \mathrm{BC}^{2}, \mathrm{CA}^{2}$
c) what is the relation between $\mathrm{AB}^{2}+\mathrm{BC}^{2}$ and $\mathrm{CA}^{2}$
d) which type of triangle is $\triangle \mathrm{ABC}$ ?

| CLASS VIDEO LINK | SCAN QR CODE |
| :---: | :---: |
|  |  |

## Class: 10 Subject: Mathematics

Date: 03-12-2020
Worksheet No:60

## Lesson: Coordinates

1) Find the distance from the origin to the following points.
a) $(-4,3)$
b) $(-5,1)$
c) $(6,3)$
d) $(1,-1)$
e) $(0,3)$
2) Find the coordinates of the points on the axes which are 6 units away from the origin.
3) a) Find the coordinates of the points where a circle of radius 5 units, centred at origin cuts the axes.
b) Write the coordinates of 8 points on this circle.
4) A circle is drawn with centre $(4,3)$ and radius 5 units.
a) Find the coordinates of the point of intersection of the circle with $X$ - axis.
b) Find the coordinates of the point of intersection of the circle with $Y$ - axis.

## Click or scan for class video



