

MATHEMATICS

CHAPTER NUMBER :~ 3

CHAPTER NAME :~ COORDINATE GEOMETRY

SUB TOPIC :~ CARTESIAN SYSTEM (ABSCISSA, ORDINATE, QUADRANT)

CHANGING YOUR TOMORROW

PREVIOUS KNOWLEDGE TEST

1. Describe the position of the student A with respect to B.
2. Describe the position of your study table with respect to the door.

LEARNING OUTCOME:~

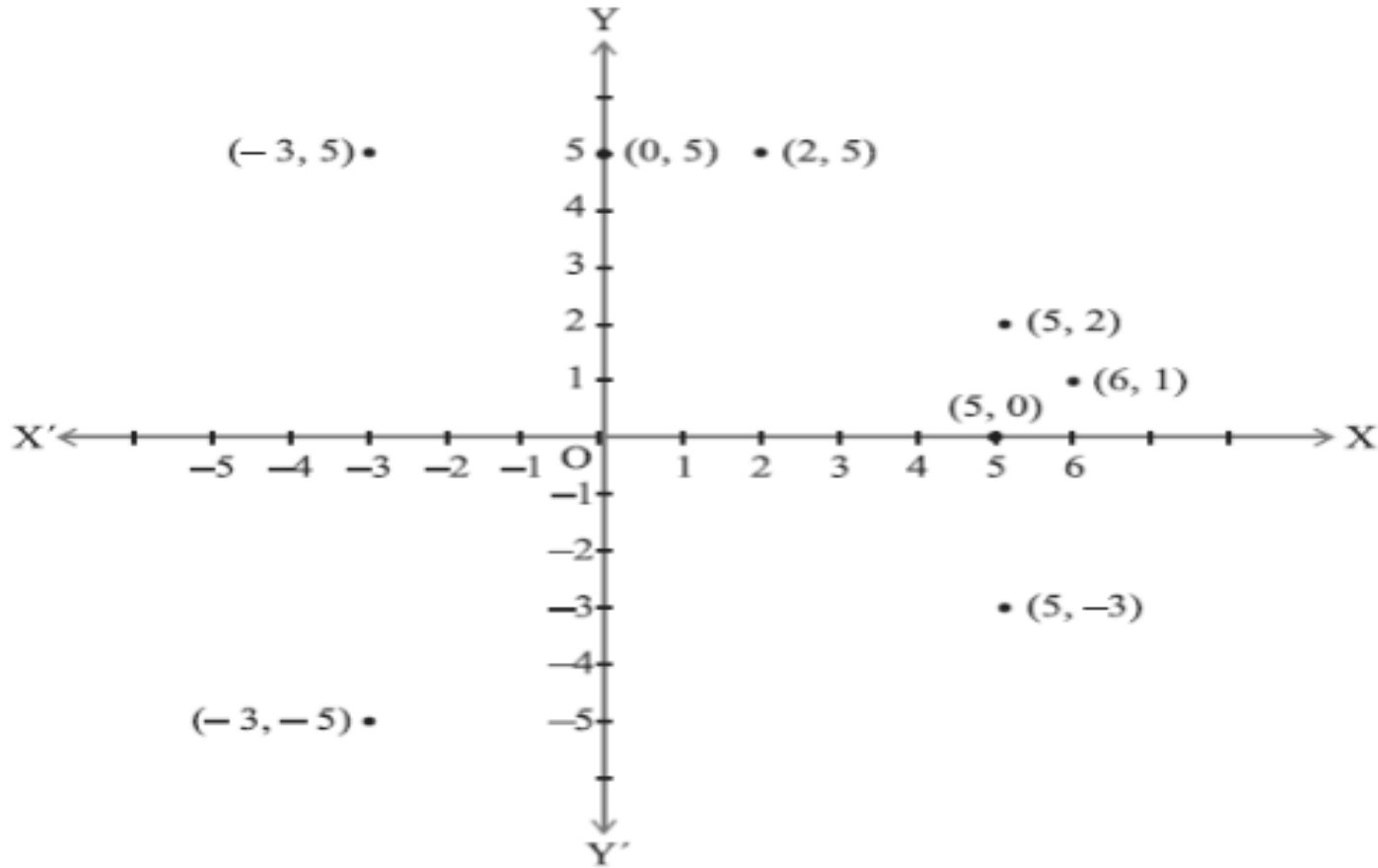
Students will learn

Cartesian System(Abscissa, Ordinate, Quadrant, Origin) .

<https://www.youtube.com/watch?v=mgx0kT5UbKk>

“Coordinate geometry is the branch of mathematics which is a fusion of algebra and geometry. In the honour of Descartes, the subject is called cartesian geometry....”

~ Rene Descartes ...



CARTESIAN PLANE

Evaluation:~

Explain the key words of Cartesian system-

(a) origin

(b) quadrant

(c) ordinate

(d) abscissa

HOMEWORK:-

EXERCISE – 3.2

Question 1.

Write the answer of each of the following questions:

- (i) What is the name of horizontal and the vertical lines drawn to determine the position of any point in the Cartesian plane?
- (ii) What is the name of each part of the plane formed by these two lines?
- (iii) Write the name of the point where these two lines intersect.

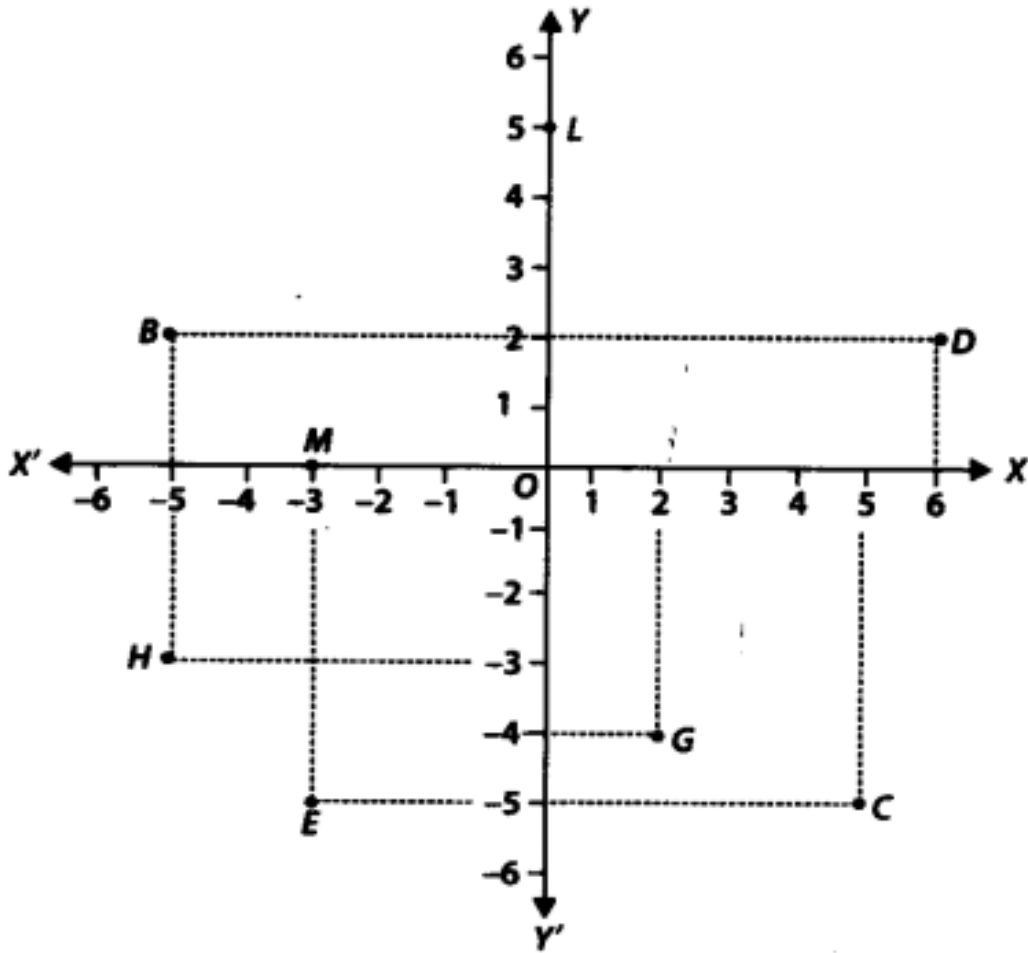
Solution:

- (i) The horizontal line: x – axis and the vertical line: y – axis.
- (ii) Each part is called “Quadrant”.
- (iii) Origin

Question 2

See the given figure and write the following:

- (i) The coordinates of B.
- (ii) The coordinates of C.
- (iii) The point identified by the coordinates $(-3, -5)$.
- (iv) The point identified by the coordinates $(2, -4)$.
- (v) The abscissa of the point D.
- (vi) The ordinate of the point H.
- (vii) The coordinates of the point L.
- (viii) The coordinates of the point M.



Solution:

From the figure, we have

- (i) The coordinates of B are $(-5, 2)$.
- (ii) The coordinates of C are $(5, -5)$.
- (iii) The point E is identified by the coordinates $(-3, -5)$.
- (iv) The point G is identified by the coordinates $(2, -4)$.
- (v) The abscissa of the point D is 6.
- (vi) The ordinate of the point H is -3 .
- (vii) The coordinates of the point L are $(0, 5)$.
- (viii) The coordinates of the point M are $(-3, 0)$.

AHA:~

A point lies on x-axis at a distance of 9 units from y-axis . What are its co-ordinates ?
What will be it's coordinate if it lies on y-axis at a distance of —9units from x-axis ?

THANKING YOU
ODM EDUCATIONAL GROUP