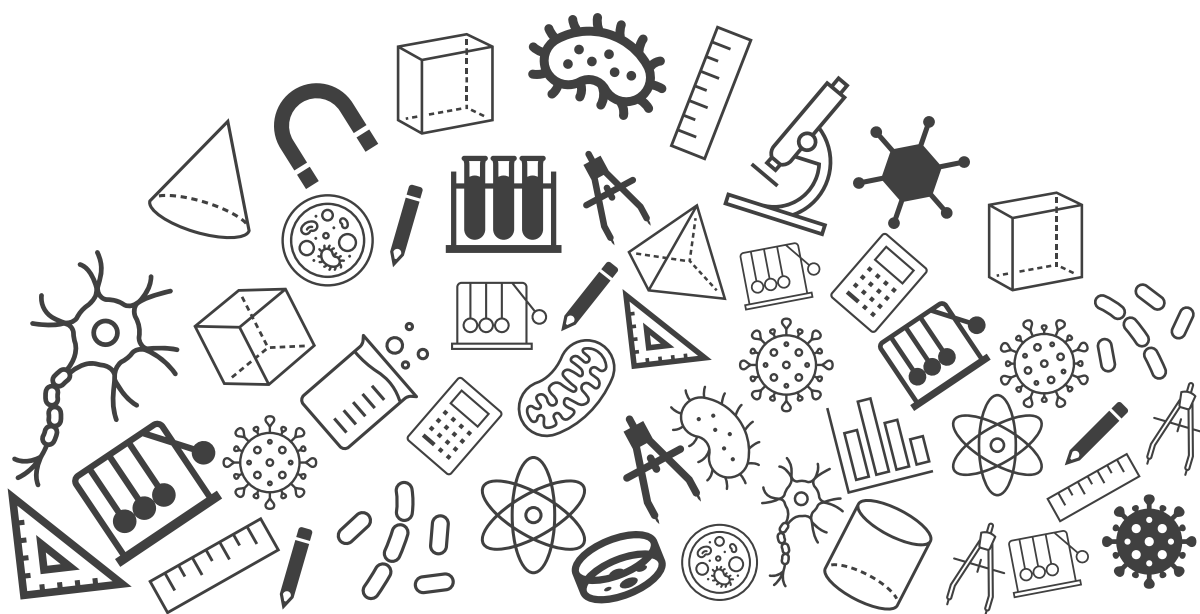




Grade 09: Maths

Exam Important Questions



Coordinate Geometry

Topic : Exam Important Question

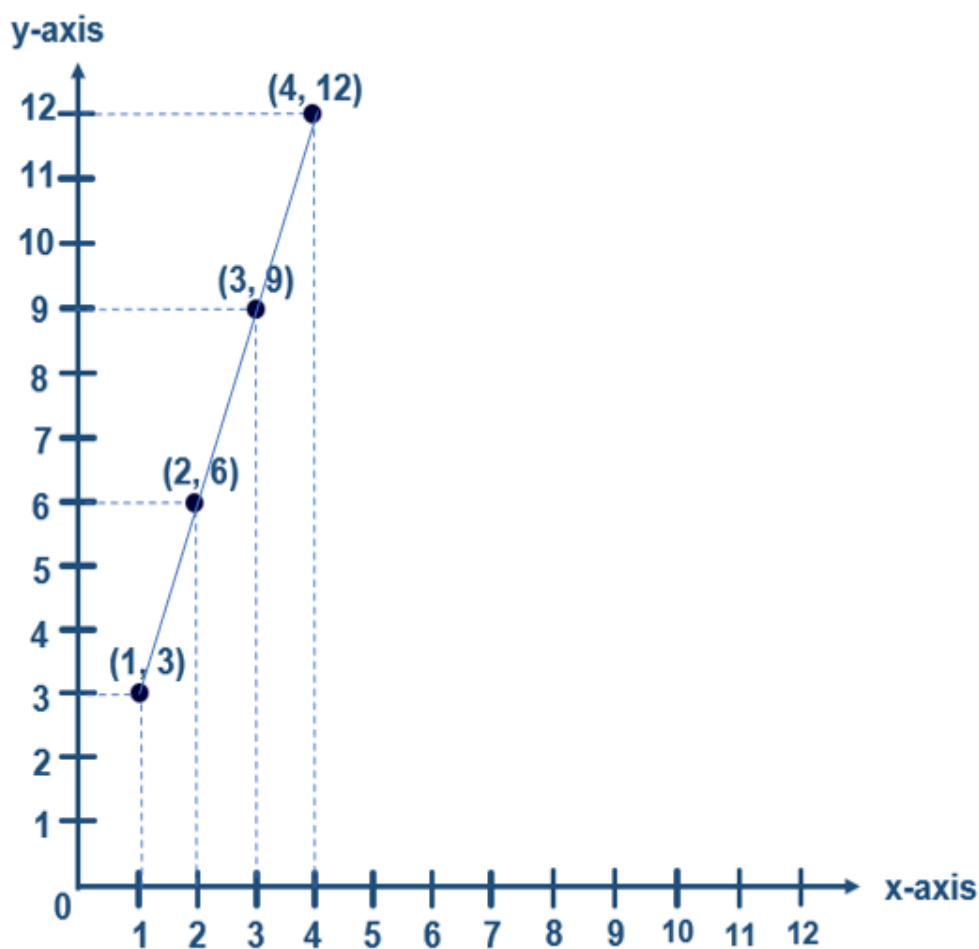
1. If y-coordinate is 3 times x-coordinate, form a table for it and draw a graph. (3 Marks)

Since the y-coordinate is 3 times the x-coordinate, we get the following values.

X	1	2	3	4
Y	3	6	9	12

(1 Mark)

If we plot all the coordinates on the coordinate axis the graph will look like following:



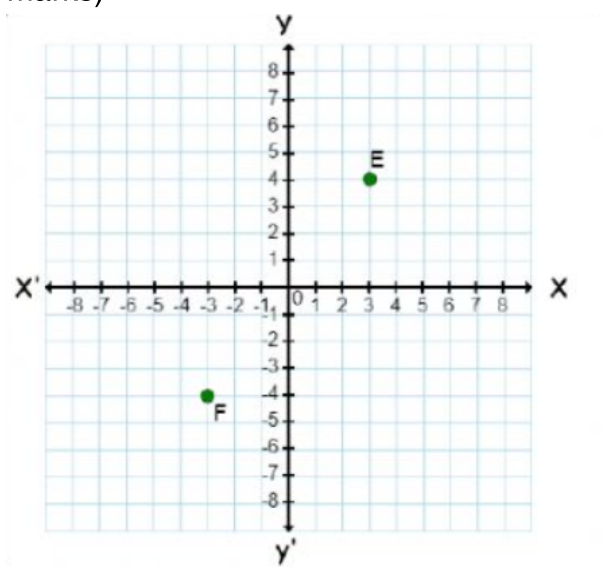
(2 Marks)

Coordinate Geometry

2. The cartesian plane is divided into ____ parts. (1 Mark)

The cartesian plane is divided into four parts. (1 Mark)

3. What are the coordinates of the point E and F of the given below graph? (3 marks)



Case(i)

The point E is at a distance of +3 units from y-axis and at a distance of +4 units from x-axis. (1 Mark)

Therefore, the x coordinate of E is 3 and y coordinate is 4. (0.5 Mark)

Hence the coordinate of E are (3, 4).

Case(ii)

The point F is at a distance of -3 units from y-axis and at a distance of -4 units from x-axis. (1.0 Mark)

Therefore, the x coordinate of F is -3 and y coordinate is -4. (0.5 Mark)

Hence the coordinate of F are (-3, -4).

4. The coordinates of point A on x-axis are given as $(a + 2, a - 2)$. Then find the value of a^2 . (2 Marks)

Given:

$$\text{Coordinates} = (a + 2, a - 2) \dots(i)$$

Since, the point A lies on x-axis.

$$\text{Coordinates of point } A = (x, 0) \dots(ii)$$

Comparing equation (i) with equation (ii) we get,

$$(a - 2) = 0 \quad (1 \text{ mark})$$

$$a = 2$$

$$a^2 = 2^2$$

$$a^2 = 4.$$

Therefore, value of a^2 is 4. (1 mark)

5. Point $(-1, 5)$ lies in which quadrant? (2 Marks)

$$\text{Here, } (x, y) = (-1, 5)$$

Since, the value of abscissa is -1 which is negative whereas, value of ordinate is 5 which is positive.

(1 Mark)

Therefore, $(-1, 5)$ lies in second quadrant.

(1 Mark)

6. The ordinate of the point $(-a, -b)$ is _____. (1 Mark)

As we know, ordinate of the point (x, y) is y .

Therefore, ordinate of the point $(-a, -b)$ is $-b$.

(1 Mark)

Coordinate Geometry

7. The abscissa of the point $(5, -9)$ is _____. (1 Mark)

As we know, abscissa of the point (x, y) is x .

Therefore, abscissa of the point $(5, -9)$ is 5.

(1 Mark)

8. For $x = 2, y = 3, u = -5, v = 10$ the point $(x + y, u + v)$ lies in which quadrant? (2 Marks)

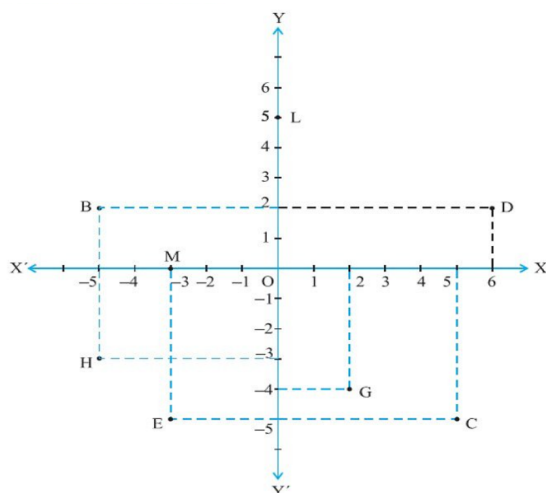
Abscissa is $x + y = 2 + 3 = 5$) (0.5 Mark)

Ordinate is $u + v = -5 + 10 = 5$ (0.5 Mark)

The point is $(5, 5)$.

Since both coordinates are positive therefore, the point lies in I quadrant. (1 Mark)

9. Find the coordinates of the points B, D and H.
(3 Marks)



Case(i)

The point B is at a distance of -5 units from y -axis and at a distance of $+2$ units from x -axis.

Therefore, the x coordinate of B is -5 and y coordinate is $+2$.

Hence the coordinate of B are $(-5, 2)$. (1 Mark)

Case(ii)

The point D is at a distance of $+6$ units from y -axis and at a distance of $+2$ units from x -axis.

Therefore, the x coordinate of D is $+6$ and y coordinate is $+2$.

Hence the coordinate of D are $(6, 2)$. (1 Mark)

Case(iii)

The point H is at a distance of -5 units from y -axis and at a distance of -3 units from x -axis.

Therefore, the x coordinate of H is -5 and y coordinate is -3 .

Hence the coordinate of H are $(-5, -3)$. (1 Mark)

10. In a “Coordinate City”, houses are numbered using coordinates. A delivery boy has been given the following information. Help him to deliver the parcel to house Q.



House Q lies on 3rd quadrant and its distances from x -axis and y -axis are 6 and 4 respectively.

Abscissa

Ordinate

Coordinates of Q