



MATHS

BOOKS - OSWAL PUBLICATION

LINES (IN TWO DIMENSIONS)

Stand Alone Mcqs

1. The distance of the point $P(3, -4)$ from the origin is

A. 7 units

B. 5 units

C. 4 units

D. 3 units

Answer: B



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2. If $AOBC$ is a rectangle whose three vertices are $A(0, 3)$, $O(0, 0)$ and $B(5, 0)$, then find the length of its diagonal.

A. 5

B. 3

C. $\sqrt{34}$

D. 4

Answer: C



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3. The perimeter of a triangle with vertices $(0,4)$, $(0,0)$ and $(3,0)$ is

A. 5

B. 12

C. 11

D. $7 + \sqrt{5}$

Answer: B



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4. The points $(-4, 0)$, $(4, 0)$ and $(0, 3)$ are the vertices of a

A. right triangle

B. isosceles triangle

C. equilateral triangle

D. scalene triangle

Answer: B



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5. The point which divides the line segment joining the points $(7,-6)$ and $(3,4)$ in ratio $1:2$ internally lies in the

A. I quadrant

B. II quadrant

C. III quadrant

D. IV quadrant

Answer: D



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6. The mid point of the line segment joining the points $(- 5, 7)$ and $(- 1, 3)$ is

A. $(-3,7)$

B. $(-3,5)$

C. $(-1,5)$

D. $(5,-3)$

Answer: B



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7. The fourth vertex D of a parallelogram $ABCD$ whose three vertices are $A(-2, 3)$, $B(6, 7)$ and $C(8, 3)$ is

A. (0,1)

B. (0,-1)

C. (-1,0)

D. (1,0)

Answer: B



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8. A line intersects the Y- axis and X-axis at the points P and Q, respectively. If (2,-5) is the mid-

point of PQ, then the coordinates of P and Q are, respectively.

A. (0,-5) and (2,0)

B. (0,10) and (-4,0)

C. (0,4) and (-10,0)

D. (0,-10) and (4,0)

Answer: D



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9. If the points $A(2, 3)$, $B(4, k)$ and $C(6, -3)$ are collinear, find the value of k .

A. 1

B. 2

C. 4

D. 0

Answer: D



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10. Two vertices of $\triangle ABC$ are $A(-1, 4)$ and $B(5, 2)$ and its centroid is $G(0, -3)$. Then, the coordinates of C are

A. $(-4, -15)$

B. $(15, -4)$

C. $(4, 3)$

D. $(4, 15)$

Answer: A



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11. If the vertices of a ΔABC are $A(-1,0)$, $B(5,-2)$ and $C(8,2)$. Then its centroid is :

A. $(4,0)$

B. $(6,0)$

C. $(12,0)$

D. $(0,6)$

Answer: A



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12. If the vertices of ΔABC are $A(a,b)$, $B(b,c)$ and $C(c,a)$ and its centroid is the origin, then the value of $(a + b + c)$ is :

A. 3

B. 1

C. 0

D. 2

Answer: C



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Assertion And Reason Based Mcqs

1. The point A is on the y-axis at a distance of 4 units above from the origin. If the coordinates of the point B are $(-3,0)$. Then length of AB is _____



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2. Prove that the centroid of any triangle is the same as the centroid of the triangle formed by joining the middle points of its sides

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true and R is not correct explanation for A.

C. A is true but R is false.

D. A is false but R is true.

Answer: C



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3. Assertion (A) : The point $(0,-3)$ lies on the y-axis.

Reason (R) : The x-coordinate of the point $(0,-3)$ is zero.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true and R is not correct explanation for A.

C. A is true but R is false.

D. A is false but R is true.

Answer: A



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4. In what ratio does the point $(4, 6)$ divide the line segment joining the points $A(-6, 10)$ and $B(3, 8)$?

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true and R is not correct explanation for A.

C. A is true but R is false.

D. A is false but R is true.

Answer: B



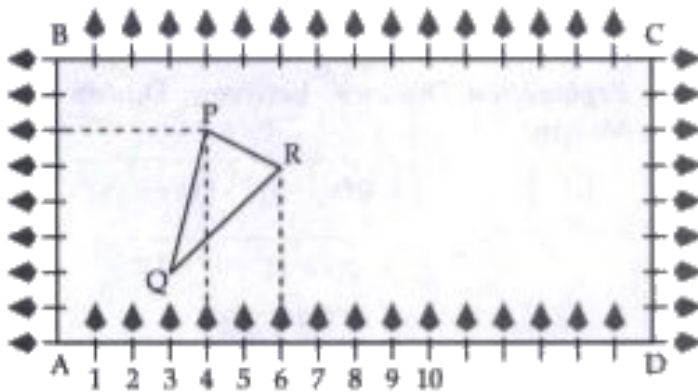
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Case Based Mcqs

1. Read the following text and answer the following questions on the basis of the same :

Class X students of a secondary school in

Krishnagar have been allotted a rectangular plot of a land for gardening activity. Saplings of Gulmohar are planted on the boundary at distance of 1 m from each other in the fig. The students are to sow seeds of flowering plants on the remaining area of the plot.



What are the coordinates of A ?

A. (0,1)

B. (1,0)

C. (0,0)

D. (-1,-1)

Answer: C



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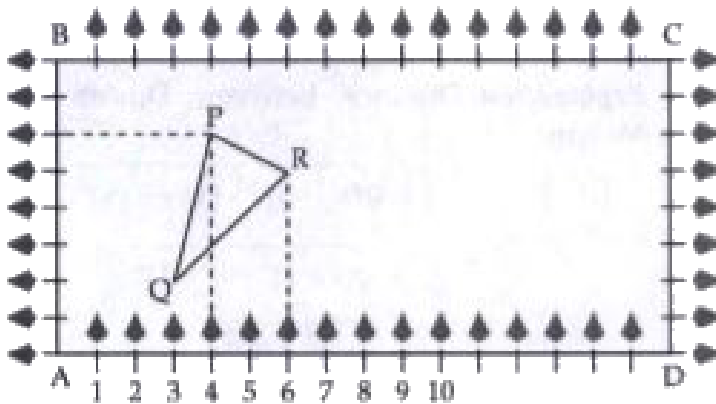
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What are the coordinates of P ?

A. (4,6)

B. (6,4)

C. (4,5)

D. (5,4)

Answer: A

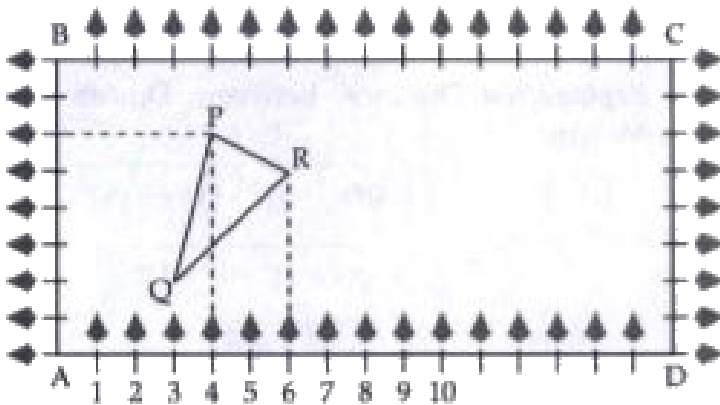


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3. Read the following text and answer the following questions on the basis of the same :

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of Gulmohar are planted on the boundary at distance of 1 m from each other in the fig. The students are to sow seeds of flowering plants on the remaining area of the plot.



What are the coordinates of R ?

A. (6,5)

B. (5,6)

C. (6,0)

D. (7,4)

Answer: A

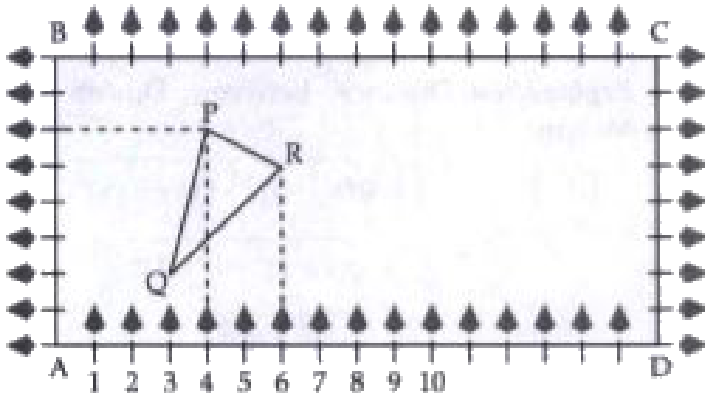


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4. Read the following text and answer the following questions on the basis of the same :

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distance of 1 m from each other in the fig. The students are to sow seeds of flowering plants on the remaining area of the plot.



What are the coordinates of D ?

A. (16,0)

B. (0,0)

C. (0,16)

D. (16,1)

Answer: A

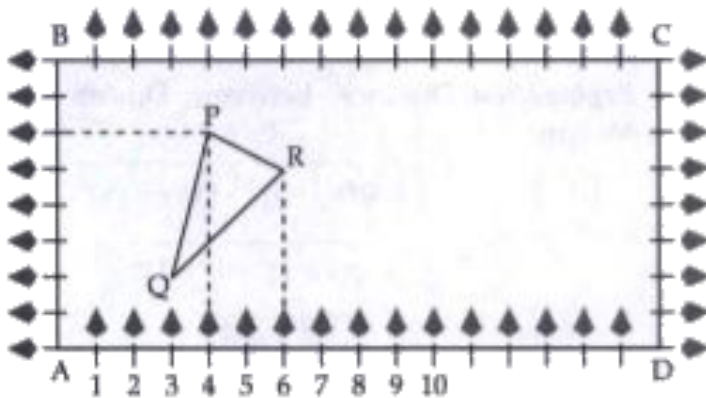


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5. Read the following text and answer the following questions on the basis of the same :

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distance of 1 m from each other in the fig. The students are to sow seeds of flowering plants on the remaining area of the plot.



What are the coordinate of P if D is taken as the origin ?

A. (12,2)

B. (-12,6)

C. (12,3)

D. (6,10)

Answer: B

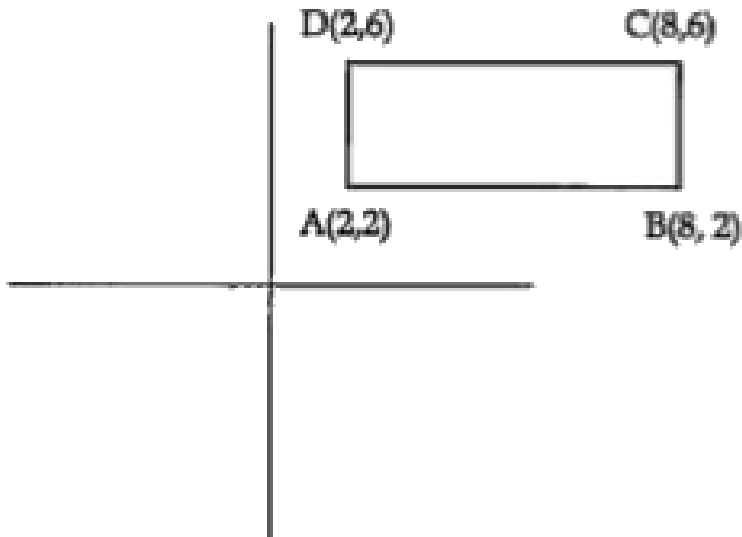


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6. Read the following text and answer the following questions on the basis of the same :

Using of mobile screen for long hours makes a child lazy, affect eyesight and give headache. Those who are addicted to playing PUBG can

easily due to lack of social interaction. To raise social awareness about its effects of playing PUBG, a school decided to start "Ban PUBG" campaign. Students are asked to prepare campaign board in the shape of rectangle.



Find the area of the board.

A. 15 sq. units

B. 20 sq. units

C. 24 sq. units

D. 40 sq. units

Answer: C



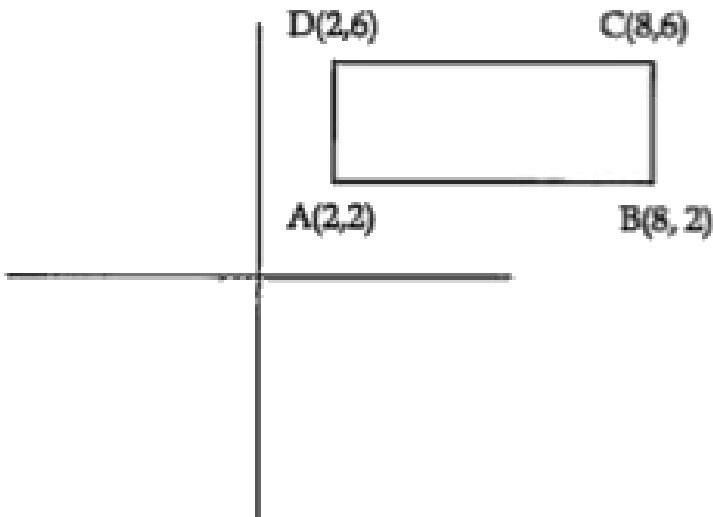
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7. Using of mobile screen for long hours makes a child lazy, affect eyesight and give headache.

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social awareness about its effects of playing PUBG, a school decided to start "Ban PUBG" campaign. Students are asked to prepare campaign board in the shape of rectangle.

If the cost of 1 cm^2 of board is Rs. 10, find the cost of board.



A. Rs. 240

B. Rs. 244

C. Rs. 480

D. Rs. 400

Answer: A



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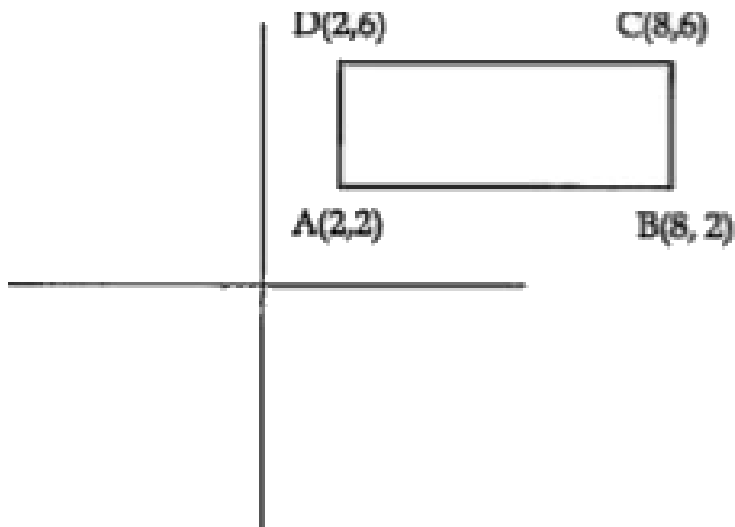
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Find the intersection point of the diagonals.

A. (5,4)

B. (0,0)

C. (4,2)

D. (-4,6)

Answer: A

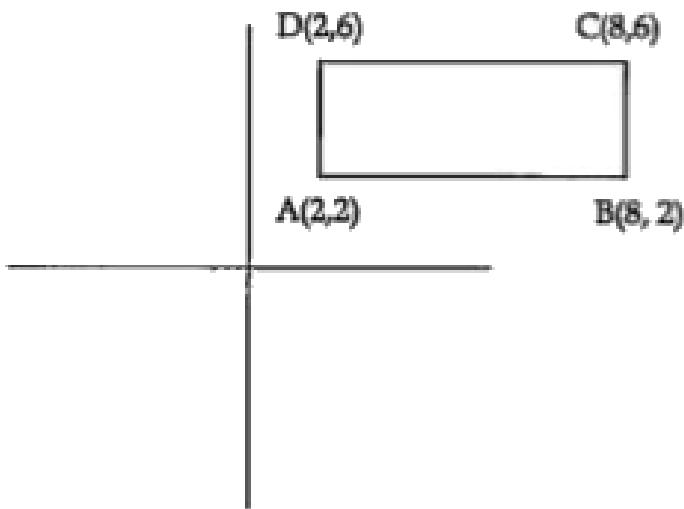


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If we interchange both the axes, find the coordinates of C.

A. (8,6)

B. (6,8)

C. (-6,-8)

D. (-6,8)

Answer: B

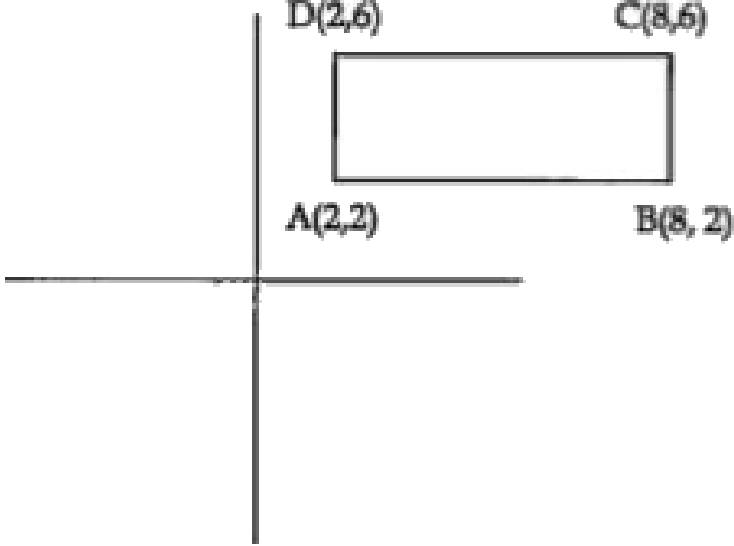


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Those who are addicted to playing PUBG can easily du to lack of social interaction. To raise social awareness about it effects of playing PUBG, a school decided to start "Ban PUBG" campaign. Students are asked to prepare campaign board in the shape of rectangle.



Find the image of the point D on the x axis.

- A. (-2,6)
- B. (-2,-6)
- C. (2,-6)
- D. (6,2)

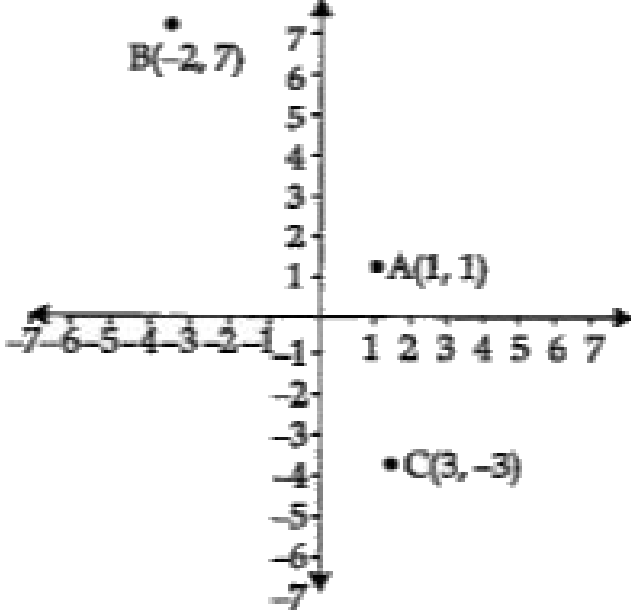
Answer: C



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11. Read the following text and answer the following questions on the basis of same.

The given figure shows the arrangement of chairs in a classroom. Dinesh, Mohan and Sohan are seated at $A(1,1)$, $B(-2,7)$ and $C(3,-3)$ respectively.



Find the distance between Dinesh and Sohan.

A. $2\sqrt{5}$ Units

B. $2\sqrt{3}$ Units

C. $2\sqrt{7}$ Units

D. $3\sqrt{2}$ Units

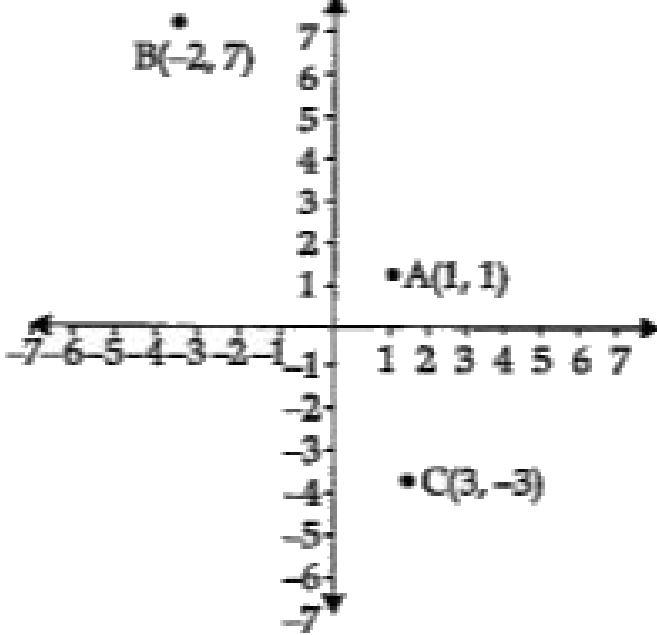
Answer: A



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12. Read the following text and answer the following questions on the basis of same.

The given figure shows the arrangement of chairs in a classroom. Dinesh, Mohan and Sohan are seated at $A(1,1)$, $B(-2,7)$ and $C(3,-3)$ respectively.



Find the distance between Dinesh and Mohan.

A. $5\sqrt{3}$ Units

B. $5\sqrt{2}$ Units

C. $3\sqrt{5}$ Units

D. $2\sqrt{5}$ Units

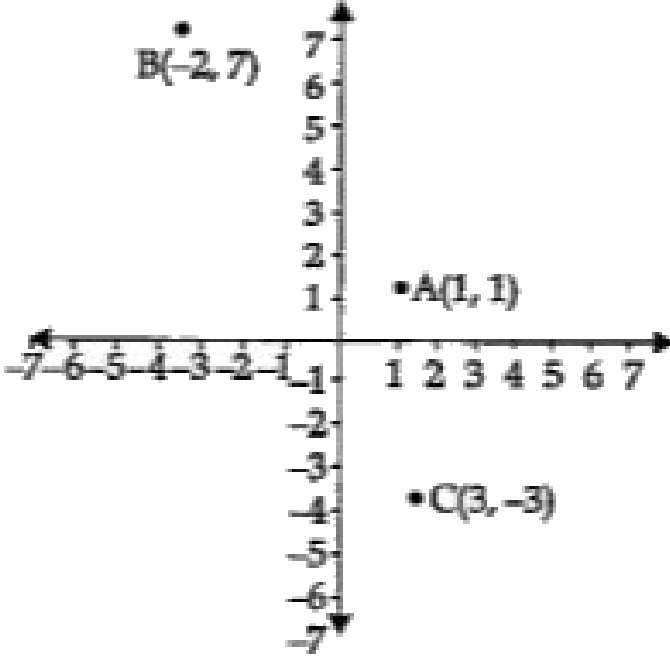
Answer: C



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Name the quadrant in which Sohan is seated.

A. 1st Quadrant

B. 2nd Quadrant

C. 3rd Quadrant

D. 4th Quadrant

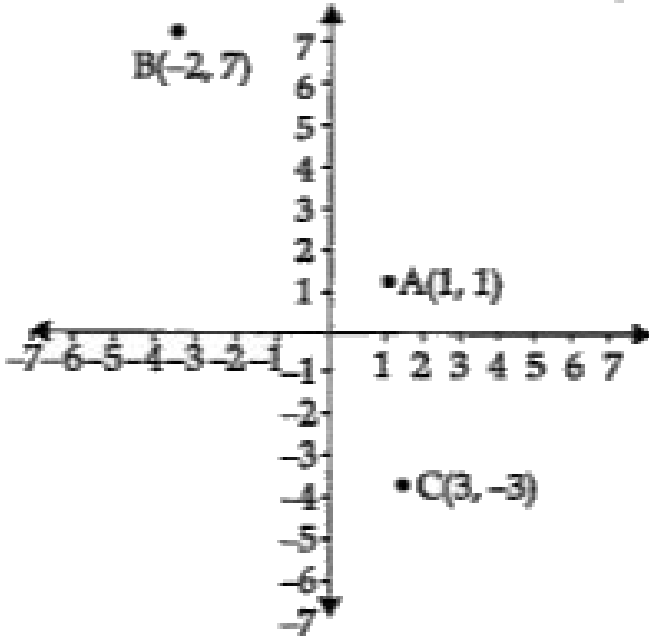
Answer: D



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14. Read the following text and answer the following questions on the basis of same.

The given figure shows the arrangement of chairs in a classroom. Dinesh, Mohan and Sohan are seated at $A(1,1)$, $B(-2,7)$ and $C(3,-3)$ respectively.



Name the co-ordinate in which Dinesh is seated.

A. 1st Quadrant

B. 2nd Quadrant

C. 3rd Quadrant

D. 4th Quadrant

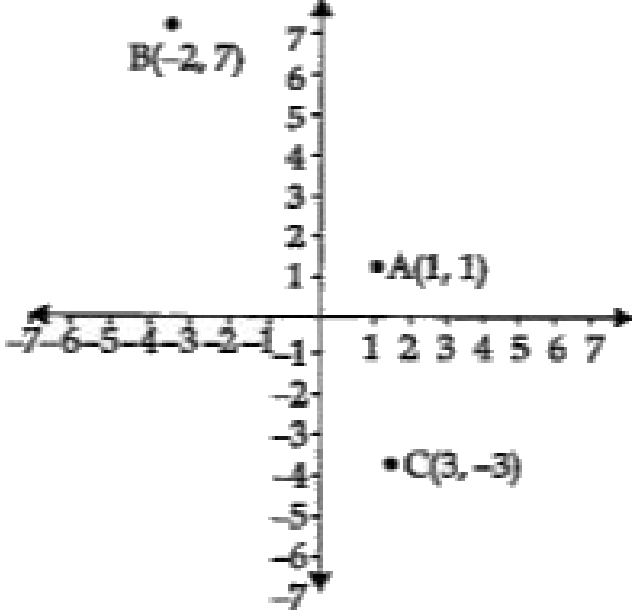
Answer: B



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15. Read the following text and answer the following questions on the basis of same.

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Which of the following is the correct distance formula ?

A. $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

B. $\sqrt{(x_2 - x_1)^2 + (y_2 + y_1)^2}$

C. $\sqrt{(x_2 + x_1)^2 + (y_2 + y_1)^2}$

D. $\sqrt{(x_2 - x_1)^2 + (y_2 + y_1)^2}$

Answer: A



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