

Class : IXTH

Date :

Subject : MATHS

DPP No. : 3

**ORIENTING YOURSELF : THE USE OF CO-ORDINATES
QUESTION BASED ON SCHOOL EXAM.**

- Q 1. Points $(-4,0)$ and $(7,0)$ lie:
(a) on x -axis (b) on y -axis
(c) in first quadrant (d) in second quadrant
- Q2. A point whose abscissa is -3 and ordinate is 2 lies in:
(a) First quadrant (b) Second quadrant
(c) Third quadrant (d) Fourth quadrant
- Q 3. The ordinate of any point on x -axis is:
(a) 0 (b) 1
(c) -1 (d) any number
- Q4. Point $(-3,5)$ lies in the
(a) first quadrant (b) second quadrant
(c) third quadrant (d) fourth quadrant
- Q5. The image of the point $(5,7)$ in y -axis has the coordinates:
(a) $(-5,7)$ (b) $(-5,-7)$
(c) $(5,-7)$ (d) $(7,-5)$
- Q 6. The distance of the point $P(4,3)$ from the origin is:
(a) 4 (b) 3
(c) 5 (d) 7
- Q 7. The distance between the points $A(-5,12)$ and $B(7,12)$ is:
(a) 5 units (b) 7 units
(c) 12 units (d) 17 units
- Q 8. The image of a point P under reflection in the x -axis has the coordinates $Q(7,-3)$. The coordinates of P are:
(a) $(7,3)$ (b) $(-7,3)$
(c) $(-7,-3)$ (d) $(-3,7)$



- Q9. Find the perimeter of the figure obtained by plotting points $M(4,3)$, $N(4,0)$, $O(0,0)$, $P(0,3)$.
 (a) 14 units (b) 12 units
 (c) 7 units (d) 24 units
- Q10. The area of the triangle, the coordinates of whose vertices are $O(0,0)$, $A(6,0)$ and $B(0,8)$ is:
 (a) 48 sq. units (b) 24 sq. units
 (c) 14 sq. units (d) 12 sq. units
- Q11. If the distance between the points $(4, k)$ and $(1,0)$ is 5, then what can be the possible values of k ?
- Q12. Do the points $(3,2)$, $(-2,-3)$ and $(2,3)$ form a triangle? If, so name the type of triangle formed.
- Q13. Find the value of a , if the distance between the points $A(-3, -14)$ and $B(a, -5)$ is 9 units.
- Q14. Find a relation between x and y such that the point (x, y) is equidistant from the points $(3,6)$ and $(-3,4)$.
- Q15. Show that the points $(1,7)$, $(4,2)$, $(-1, -1)$ and $(-4,4)$ are the vertices of a square.
- Q16. Show that the points $A(2, -2)$, $B(14,10)$, $C(11,13)$ and $D(-1,1)$ are the vertices of a rectangle.
- Q17. If $A(5,2)$, $B(2, -2)$ and $C(-2, t)$ are the vertices of a right angled triangle with $\angle B = 90^\circ$, then find the value of t .
- Q18. Rishi and Nisha, two best friends, study in the same school at O . From the starting point O , Rishi starts to drive towards home. He first drives 2 km to his right and then takes a right turn and drives 1 km. He then takes a left turn and drives 3 km to reach a salon. After spending 1 hour in the salon, he turns right and drives 4 km to reach his home.

On the other hand, from O Nisha starts to drive towards home. She first drives 3 km to her left then turns right and drives for another 2 km and reaches the railway station. From there she takes a left turn and covers 2 km. She then takes a right turn, and drives another 4 km to reach her home.

Based on given graph, answer the following questions.

- (i) What are the coordinates of railway station?
 (ii) In which quadrant Rishi drives?
 (iii) (a) What is the sum of ordinates of Nisha's home and Rishi's home?

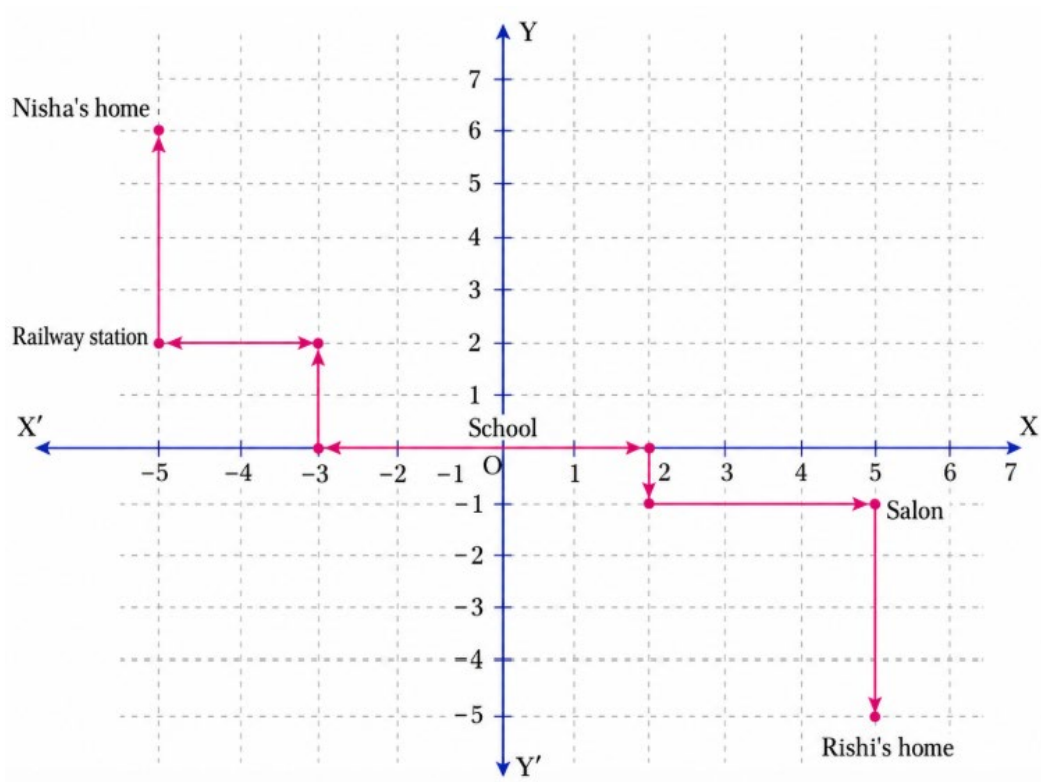
OR

- (b) What are the coordinates of salon?

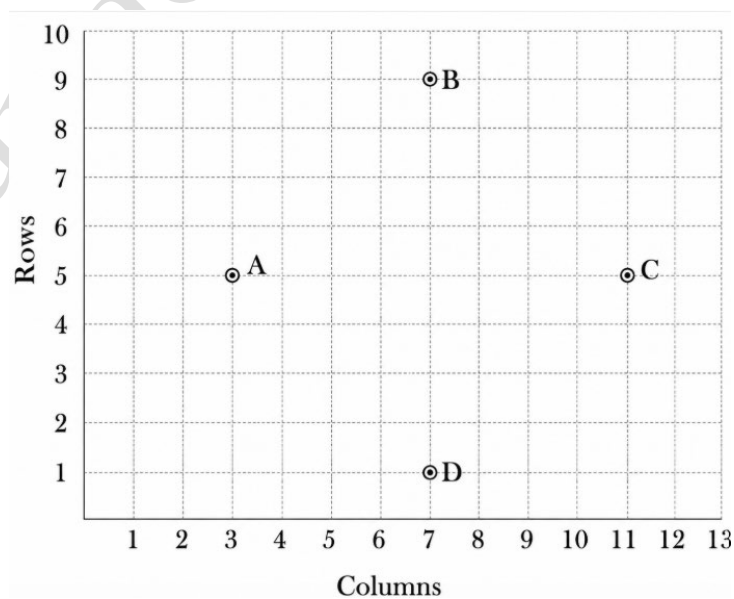


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- Q19. The students of a school are standing or seated in rows and columns on their playground for yoga practice. A, B, C , and D represent the positions of four students, as shown in the figure.



Based on the above information, answer the following questions:

- (i) Find the coordinates of A and B .
- (ii) Find the distance between A and B .
- (iii) (a) If Tanvika is seated such that she is equidistant from each of the four students A, B, C and D , then locate the position of Tanvika.

OR

- (b) Find the distance between A and C .

ANSWER KEY

- 1.a 2.b 3.a 4.b 5.a 6.c 7.c
- 8.a 9.a 10.b
11. $k = 4, -4$
12. Right angled triangle
13. $a = -3$
14. $3x + y - 5 = 0$
17. 1
18. (i) $(-3, 2)$ (ii) quadrant IV (iii) (a) 1 OR (b) $(5, -1)$
19. (i) $(3, 5)$ and $(7, 9)$ (ii) $4\sqrt{2}$ units (iii) (a) $(7, 5)$ OR (b) 8 units

