NCERT MATHS SOLUTIONS

Class - 10 || COORDINATE GEOMETRY

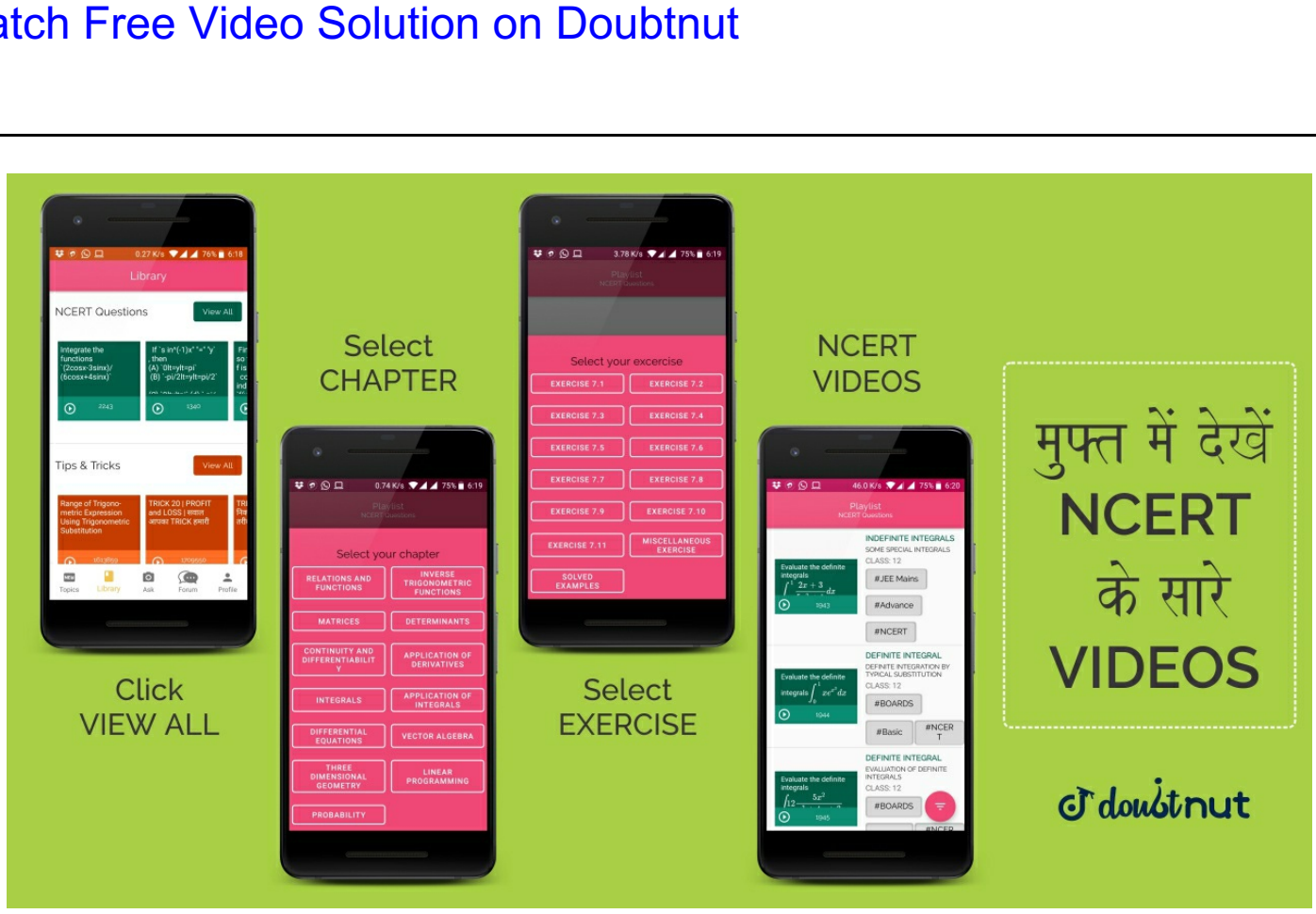
Ques No.	Question
1	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.1 - Q 1** Find the distance between the following pairs of points : $(i)\ \ (2,3),(4,1)$ $(ii)\ \ (5,\ \ 7),$ $(1,\ \ 3)$ $(iii)\ \ (a,\ \ b),$ (a,b) Watch Free Video Solution on Doubtnut
2	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.1 - Q 2** Find the distance between the points (0, 0) and (36, 15). Watch Free Video Solution on Doubtnut
3	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.1 - Q 3** Determine if the points $(1,\ \ 5),$ $\ \ (2,\ \ 3)\ \ and$ $(2,\ \ 11)$ are collinear. Watch Free Video Solution on Doubtnut
4	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.1 - Q 4** Check whether $(5,-2),\quad (6,4)$ $and\quad (7,\quad 2)$ are the vertices of an isosceles triangle. Watch Free Video Solution on Doubtnut

5	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.1 - Q 5** In a classroom, 4 friends are seated at the points A. B. C and D as shown in Fig. 7.8. Champa and Chameli walk into the class and after observing for a few minutes Champa asks Chameli, "Don't you think ABCD is a square?" Chameli disagrees. Using distance formula, find which of them is correct. Watch Free Video Solution on Doubtnut
6	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.1 - Q 6** Name the type of quadrilateral formed, if any, by the following points, and give reasons for your answer: `(i)\ (1,"\ "2),"\ "(1,"\ "0),"\ "(1,"\ "2),"\ "(3,"\ "0)(i i)"\ "(3,"\ "5),(3,"\ "1),(0,"\ "3),(1,"\ "4)(i i i)"\ "(4,"\ "5),"\ "(7,"\ "6),"\ Watch Free Video Solution on Doubtnut
7	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.1 - Q 7** Find the point on the xaxis which is equidistant from $(2, \ \ 5)\ \ and\ \ (2, \ \ 9)$ Watch Free Video Solution on Doubtnut
8	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.1 - Q 8** Find the values of y for which the distance between the points $P(2, \ \ 3)\ \ and\ \ Q(10, \ \ y)$ is 10 units. Watch Free Video Solution on Doubtnut

9	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.1 - Q 9** If Q(0, 1) is equidistant from $P(5, \ 3)$ and R(x, 6), find the values of x. Also find the distances QR and PR. Watch Free Video Solution on Doubtnut
10	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.1 - Q 10** Find a relation between x and y such that the point (x, y) is equidistant from the point $(3, \ 6)\ and\ (3, \ 4)$. Watch Free Video Solution on Doubtnut
11	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.2 - Q 1** Find the coordinates of the point which divides the join of $(1, \ 7)\ and\ (4, \ 3)$ in the ratio 2 : 3. Watch Free Video Solution on Doubtnut
12	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.2 - Q 2** Find the coordinates of the points of trisection of the line segment joining $(4, \ 1)\ and\ (2, \ 3)$. Watch Free Video Solution on Doubtnut

13	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.2 - Q 3** To conduct Sports Day activities, in your rectangular shaped school ground ABCD, lines have been drawn with chalk powder at a distance of 1m each. 100 flower pots have been placed at a distance of 1m from each other along AD, as shown in Figure Watch Free Video Solution on Doubtnut
14	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.2 - Q 4** Find the ratio in which the line segment joining the points $(3, \ 10)\ and\ (6, \ 8)\ is\ divided\ by\ (1, \ 6)$. Watch Free Video Solution on Doubtnut
15	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.2 - Q 5** Find the ratio in which [the line segment joining $A(1, \ 5)\ and\ B(4, \ 5)$ is divided by the xaxis. Also find the coordinates of the point of division. Watch Free Video Solution on Doubtnut
16	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.2 - Q 6** If (1, 2), (4, y), (x, 6) and (3, 5) are the vertices of a parallelogram taken in order, find x and y. Watch Free Video Solution on Doubtnut
17	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.2 - Q 7** Find the coordinates of a point A, where AB is the diameter of a circle whose centre is $(2, \ 3)\ and\ B\ is\ (1, \ 4)$. Watch Free Video Solution on Doubtnut

18	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.2 - Q 8** If A and B are $(2, \ 2) \ and \ (2, \ 4)$, respectively, find the coordinates of P such that $AP = \frac{3}{7}AB$ and P lies on the line segment AB. Watch Free Video Solution on Doubtnut
19	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.2 - Q 9** Find the coordinates of the points which divide the line segment joining $A(2, \ 2) \ and \ B(2, 8)$ into four equal parts. Watch Free Video Solution on Doubtnut
20	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.2 - Q 10** Find the area of a rhombus if its vertices are $(3, 0), \ (4, \ 5), \ (-1. 4) \ and \ (2, \ 1)$ taken in order. Watch Free Video Solution on Doubtnut
	NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.3 - Q 1 Find the area of the triangle whose vertices are

21	$(i) \quad (2,3), \backslash \quad (1,0),$ $\backslash \quad (2, \backslash \quad 4)$ $(ii)(5,1), \backslash \quad (3,5),$ $\backslash \quad (5,2)$ Watch Free Video Solution on Doubtnut
22	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.3 - Q 2** In each of the following find the value of k for which the points are collinear. $(i) \backslash \quad (7, \backslash \quad 2),$ $(5, \backslash \quad 1),$ $(3, \backslash \quad k)(ii) \backslash \quad (8,$ $\backslash \quad 1), (k, \backslash \quad 4),$ $\backslash \quad (2, \backslash \quad 5)$ Watch Free Video Solution on Doubtnut
23	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.3 - Q 3** Find the area of the triangle formed by joining the mid–points of the sides of the triangle whose vertices are (0, –1), (2, 1) and (0, 3). Find the ratio of this area to the area of the given triangle. Watch Free Video Solution on Doubtnut
doubtnut पढ़ना हुआ आसान	
	NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.3 - Q 4 Find the area of the quadrilateral whose vertices, taken in order, are

24	$(-4,-2),$ $\quad(-3,-5),$ $\quad(3,-2) \quad and$ $(2,3).$ Watch Free Video Solution on Doubtnut
25	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.3 - Q 5** You have studied in Class IX, (Chapter 9. Example 3), that a median of a triangle divides it into two triangles of equal areas. Verify this result for A ABC whose vertices are $A(4,\ 6),$ $\quad B(3,\ 2)$ $\quad and\ C(5,\ 2).$ Watch Free Video Solution on Doubtnut
26	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.4 - Q 1** Determine the ratio in which the line 2x +y – 4 = 0 divides the line segment joining the points A(2, – 2) and B(3,7). Watch Free Video Solution on Doubtnut
27	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.4 - Q 2** Find a relation between x and y if the points (x, y), (1, 2) and (7, 0) are collinear. Watch Free Video Solution on Doubtnut
28	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.4 - Q 3** Find the centre of a circle passing through the points $(6,\ 6),$ $\quad(3,\ 7)$ $\quad and$ $(3,\ 3).$ Watch Free Video Solution on Doubtnut
	NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.4 - Q 4 The two opposite vertices of a square are

29	$(1, \ 2) \ and \ (3, \ 2)$. Find the coordinates of the other two vertices. Watch Free Video Solution on Doubtnut
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30	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.4 - Q 5** The Class X students of a secondary school in Krishinagar have been allotted a rectangular plot of land for their gardening activity. Sapling of Gulmohar are planted on the boundary at a distance of 1m from each other. There is a triangular grassy lawn in the plot as shown in the Figure. The students are to sow seeds of flowering plants on the remaining area of the plot. (i) Taking A as origin, find the coordinates of the vertices of the triangle. (ii) What will be the coordinates of the vertices of DPQR if C is the origin? Also calculate the areas of the triangles in these cases. What do you observe? Watch Free Video Solution on Doubtnut
31	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.4 - Q 6** The vertices of a ΔABC are A(4,6), B(1,5) and C(7,2). A line is drawn to intersect sides AB and AC at D and E respectively, such that $\frac{AD}{AB} = \frac{AE}{AC} = \frac{1}{4}$ Calculate the area of the ΔADE and compare it with the area of ΔABC Watch Free Video Solution on Doubtnut
32	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.4 - Q 7** Let A (4, 2), B(6, 5) and C(1, 4) be the vertices of ΔABC . (i) The median from A meets BC at D. Find the coordinates of the point D. (ii) Find the coordinates of the point P on AD such that AP : PD = 2 : 1 (iii) Find the coordinates of p Watch Free Video Solution on Doubtnut

33	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - EXERCISE 7.4 - Q 8** ABCD is a rectangle formed by the points $A(1, \ 1)$, $\ B(1, \ 4)$, $\ C(5, \ 4)\$ $and\$ $D(5, \ 1)$. P, Q, R and S are the midpoints of AB, BC, CD and DA respectively. Is the quadrilateral PQRS a square? A rectangle? or a rhombus? Justify yo Watch Free Video Solution on Doubtnut
34	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - SOLVED EXAMPLES - Q 1** Do the points $(3, \ 2), \ (2, \ -3)\$ $and\$ $(2, \ 3)$ form a triangle? If so, name the type of triangle formed. Watch Free Video Solution on Doubtnut
35	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - SOLVED EXAMPLES - Q 2** Show that the points $(1, \ 7), \ (4, \ 2), \ (1, \ 1)\$ $and\$ $(\ 4, \ 4)$ are the vertices of a square. Watch Free Video Solution on Doubtnut

36	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - SOLVED EXAMPLES - Q 3** Figure shows the arrangement of desks in a classroom Ashima, Bharti and Camella are seated at A(3, 1), B(6, 4) and C(8, 6) respectively. Do you think they are seated in a line? Give reasons for your answer. Watch Free Video Solution on Doubtnut
37	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - SOLVED EXAMPLES - Q 4** Find a relation between x and y such that the point (x ,y) is equidistant from the points (7, 1) and (3, 5). Watch Free Video Solution on Doubtnut
38	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - SOLVED EXAMPLES - Q 5** Find a point on theyaxis which is equidistant from the points $A(6, \ \ 5) \ \ and \ \ B(4, \ \ 3)$. Watch Free Video Solution on Doubtnut
39	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - SOLVED EXAMPLES - Q 6** Find the coordinates of the point which divides the line segment joining the points $(4, \ \ 3) \ \ and \ \ (8, \ \ 5)$ in the ratio 3 : 1 internally. Watch Free Video Solution on Doubtnut
40	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - SOLVED EXAMPLES - Q 7** In what ratio does the point $(4, \ \ 6)$ divide the line segment joining the points $A(-6, 10) \ \ and \ \ B(3, 8)$? Watch Free Video Solution on Doubtnut
41	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - SOLVED EXAMPLES - Q 8** Find the coordinates of the points of trisection (i.e., points dividing in three equal parts) of the line segment joining the points

$A(2, 2)\ \ and\ \ B(7, 4)$

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NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - SOLVED EXAMPLES - Q 9

Find the ratio in which the yaxis divides the line segment joining the points $(5, \ \ 6)\ \ and\ \ (1, \ \ 4)$

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NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - SOLVED EXAMPLES - Q 10

If the points A(6, 1), B(8, 2), C(9, 4) and D(p, 3) are the vertices of a parallelogram, taken in order, find the value of p.

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NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - SOLVED EXAMPLES - Q 11

Find the area of a triangle whose vertices are $(1, \ \ -1),\ \ (-4, \ \ 6)\ \ and\ \ (-3, \ \ 5)$.

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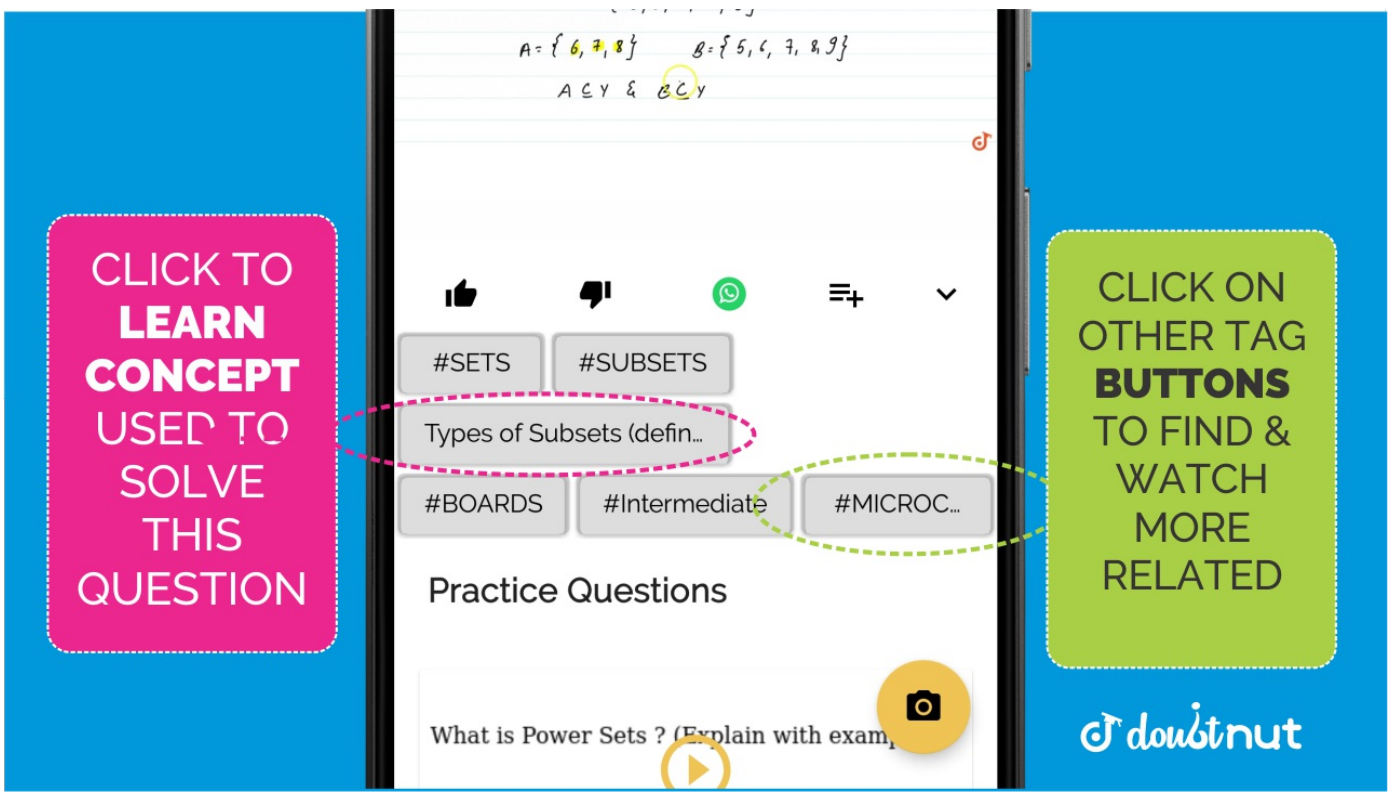
NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - SOLVED EXAMPLES - Q 12

45	Find the area of a triangle formed by the points $A(5, \ 2)$, $\ B(4, \ 7)\$ $and\ C(7, 4)$. Watch Free Video Solution on Doubtnut
46	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - SOLVED EXAMPLES - Q 13** Find the area of the triangle formed by the points $P(-1.5, \ 3)$, $\ Q(6, \ -2)\$ $and\ R(3, \ 4)$. Watch Free Video Solution on Doubtnut
47	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - SOLVED EXAMPLES - Q 14** Find the value of k if the points $A(2, \ 3)$, $\ B(4, \ k)\$ $and\ C(6, \ 3)$ are collinear. Watch Free Video Solution on Doubtnut
doubtnut पढ़ना हुआ आसान	
48	**NCERT - CLASS 10 - CHAPTER 7 COORDINATE GEOMETRY - SOLVED EXAMPLES - Q 15** If

$A(5, \ 7),$
$\ B(-4, \ -5),$
$\ C(-1, \ -6)\$
$and\ D(4, \ 5)$
are the vertices of a quadrilateral, find the area of the quadrilateral ABCD.

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