

Coordinate Geometry

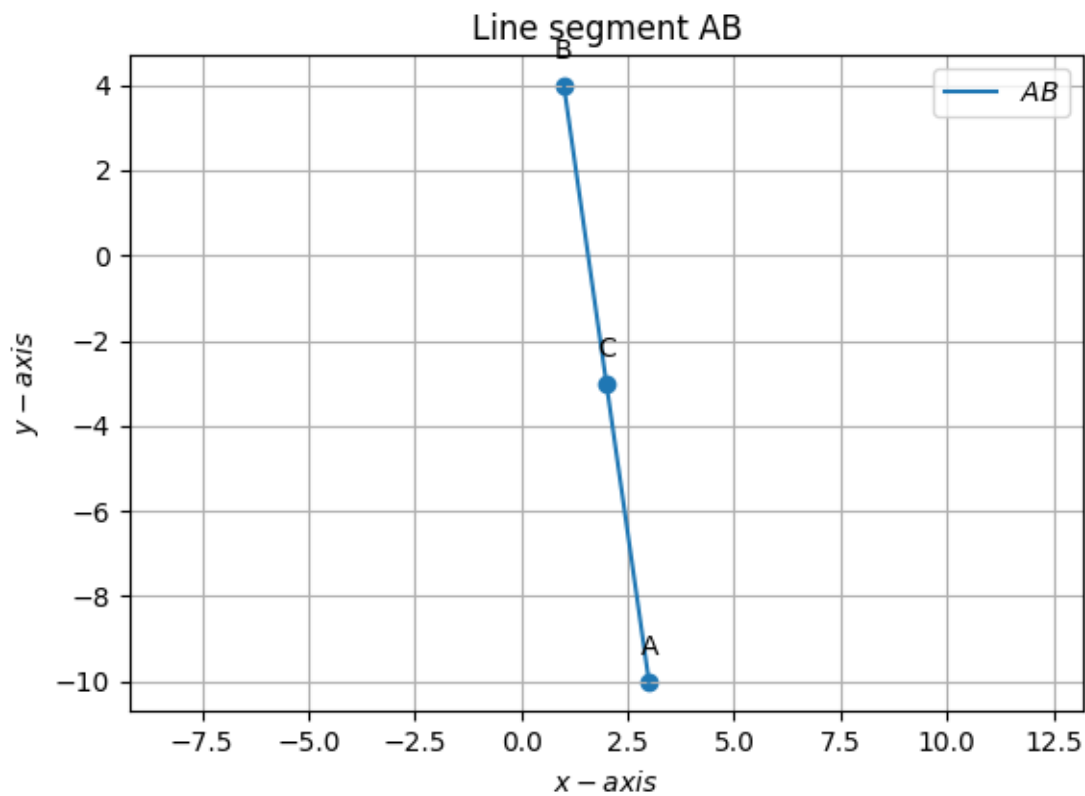
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Class 10th Maths - Chapter 7

This is Problem-7 from Exercise 7.4

1. 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).



Solution: : $c = \frac{x_1+x_2}{2}, \frac{y_1+y_2}{2}$

$$c = \left(\frac{x+1}{2}, \frac{y+4}{2} \right) \quad (1)$$

$$2 = \frac{x+1}{2} \quad (2)$$

$$x = 3 \quad (3)$$

$$\text{so,} \quad (4)$$

$$-3 = \frac{y+4}{2} \quad (5)$$

$$y = -10 \quad (6)$$

$$(7)$$

hence, the coordinates are (3, -10)