## Coordinate Geometry

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## $10^{th}$ Maths - Chapter 7

This is Problem 2 from Exercise 7.1

1. Find the distance between the following pairs of points. ii)(0,0),(36, 15).

Solution: :

Given,

$$\mathbf{A} = \begin{pmatrix} 0 \\ 0 \end{pmatrix} \tag{1}$$

$$\mathbf{B} = \begin{pmatrix} 36\\15 \end{pmatrix} \tag{2}$$

$$\mathbf{AB} = \begin{pmatrix} 36 \\ 15 \end{pmatrix} \tag{3}$$

$$||AB|| = \sqrt{(36)^2 + (15)^2} \tag{4}$$

$$||AB|| = \sqrt{1296 + 225} \tag{5}$$

$$||AB|| = \sqrt{1521} \tag{6}$$

$$||AB|| = 39 \tag{7}$$

(8)

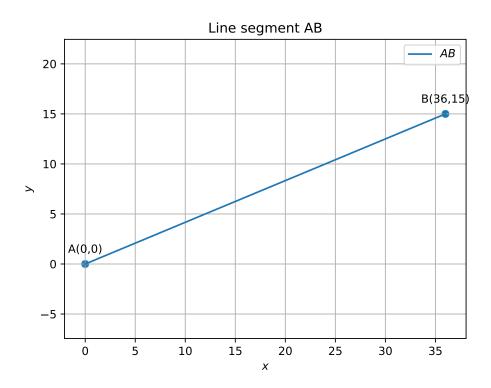


Figure 1: Line segment AB