

## O Level E Maths      Tutorial 15: Coordinate geometry

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Syllabus :

- finding the gradient of a straight line given the coordinates of two points on it
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1. (i) Find the gradients of line segments AB and BC.

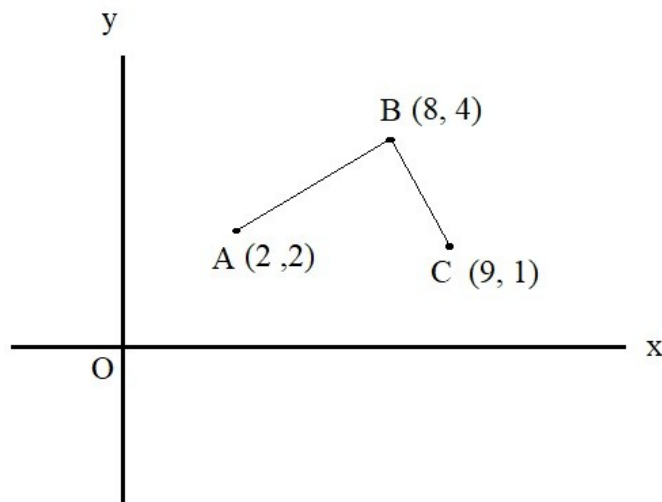


Figure 15-1

- (ii) If two lines are perpendicular to each other, then the products of their gradients is 1. Find the product of the gradients of AB and BC. Are they perpendicular?

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- finding the length of a line segment given the coordinates of its end points
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2. Find the lengths of the line segments AB and BC in Fig. 15-1 above.

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- interpreting and finding the equation of a straight line graph in the form  $y = mx + c$
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3. (i) A straight line on the xy plane goes through the points (2, 2) and (8, 4). Find the equation of this line in the form  $y = mx + c$ .

- (ii) Another straight line goes through the points (2, 2). It is perpendicular to the previous line. Find the equation of this line in the same form.

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- geometric problems involving the use of coordinates
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4. Find the point of intersection of the lines given by these two equations:

$$y = 2x - 1$$

$$y = -x + 2$$