

Year 12 Pure – Coordinate Geometry.

Fill in the missing information in the table.

Point A	Point B	<u>Midpoint</u> of the line segment AB	<u>Length</u> of the line segment AB	<u>Gradient</u> of the line segment AB	<u>Equation</u> of the line through A and B.
(1,3)	(5,11)				
(-3,2)	(5,-6)				
$\left(\frac{-7}{3}, \frac{-22}{3}\right)$	$\left(\frac{11}{3}, \frac{-4}{3}\right)$				
	(-7,11)	$\left(-11, \frac{7}{2}\right)$			
	(-2,-4)		$2\sqrt{5}$		$x + 2y + 10 = 0$
		(4,1)	20	$\frac{3}{4}$	
(4,1)			$4\sqrt{13}$		$2x + 3y - 11 = 0$

To consider:

- Which of these have multiple possible answers?
- If you were not given either point A or point B, what is the minimum information required to complete the row?