

Equation of a Line

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NAME _____

DATE _____

1 A line has equation $y = -3x + 9$

 EITHER PAPER 2 MARKS

(a) Write down the coordinates of the point where the line intersects the y -axis.

(b) Write down the coordinates of the point where the line intersects the x -axis.

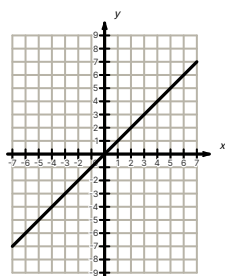
2 Determine whether the point $(-2, 2)$ lies on the line $y = -3x - 4$.

 EITHER PAPER 2 MARKS

You must show your working.

3 The line L is drawn on the grid.

 EITHER PAPER 3 MARKS



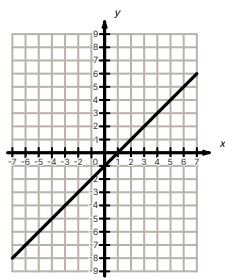
(a) Find the equation of L .

(b) The point $(-2, s)$ lies on L .

Calculate the value of s .

- 4 The line L is drawn on the grid.

EITHER PAPER 3 MARKS

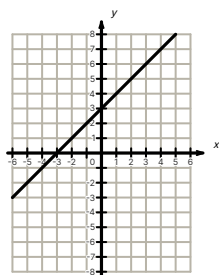


Find the equation of L .

Give your answer in the form $y = mx + c$.

- 5 The line L is drawn on the grid.

EITHER PAPER 4 MARKS



(a) Find the equation of L , in the form $y = mx + c$.

(b) Another line is parallel to L and crosses the y -axis at $(0, -3)$.

Write down the equation of that line.

- 6 A straight line passes through $(-4, -7)$ and $(1, 8)$.

EITHER PAPER 3 MARKS

Find the equation of the line.

Give your answer in the form $y = mx + c$.

- 7 A straight line has gradient -3 and passes through the point $(-5, 21)$. EITHER PAPER 3 MARKS

Work out the equation of the line.

Give your answer in the form $y = mx + c$.

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- 8 A straight line has equation $4y = 16x - 24$ EITHER PAPER 3 MARKS

(a) Rearrange the equation into the form $y = mx + c$.

(b) State the gradient of the line.

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- 9 A straight line has equation $x + y = -5$ EITHER PAPER 3 MARKS

(a) Rearrange the equation into the form $y = mx + c$.

(b) State the gradient of the line.

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- 10 A is the point $(3, -19)$. EITHER PAPER 4 MARKS

B is the point $(5, -27)$.

(a) Show that the gradient of the straight line passing through A and B is -4 .

(b) C is the point $(255, -1027)$.

Does C lie on the straight line passing through A and B ?

You must show your working.

1	(a) $(0, 9)$ (b) $(3, 0)$	2	Yes
3	(a) $y = x$ (b) -2	4	$y = x - 1$
5	(a) $y = x + 3$ (b) $y = x - 3$	6	$y = 3x + 5$
7	$y = -3x + 6$	8	(a) $y = 4x - 6$ (b) 4
9	(a) $y = -x - 5$ (b) -1	10	(a) $\frac{-27 - (-19)}{5 - 3} = \frac{-8}{2} = -4$ (b) Yes: the line gives $y = -1027$ at $x = 255$, and C has $y = -1027$