

E5.1 Equations of a Line (Gradients, Mid-Points, Perpendicular & Parallel Lines)

Question Paper

Level	IGCSE
Subject	Maths (0580)
Exam Board	Cambridge International Examinations (CIE)
Level	Core
Topic	E5. Co-ordinate Geometry
Sub-Topic	E5.1 Equations of a Line (Gradients, Mid-Points, Perpendicular & Parallel Lines)
Booklet	Question Paper

Time Allowed: 24 minutes

Score: /20

Percentage: /100

Grade Boundaries:

A*	A	B	C	D	E	U
>85%	75%	60%	45%	35%	25%	<25%

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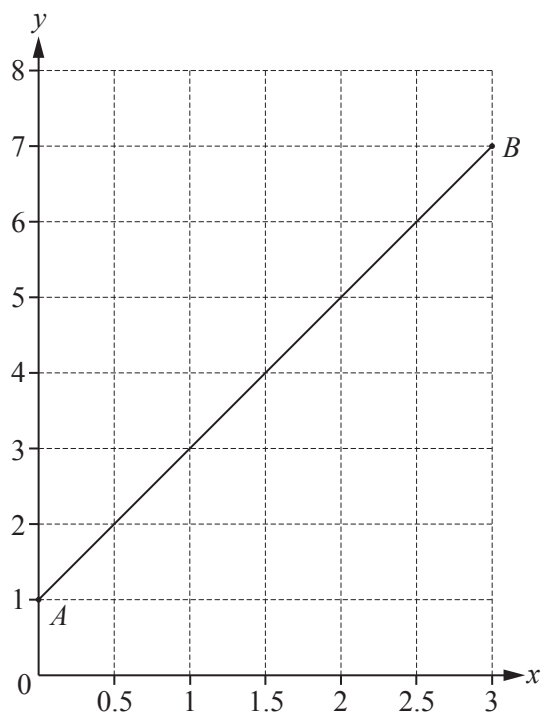
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1 $y = mx + c$

Find the value of y when $m = -2$, $x = -7$ and $c = -3$.

$y = \dots\dots\dots$ [2]

2 (a)



The line AB is drawn on the grid.

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(i) Write down the co-ordinates of A .

(.....,) [1]

(ii) Work out the gradient of the line AB .

..... [2]

(iii) Write down the equation of the line AB in the form $y = mx + c$.

$y =$ [2]

(b) Write down the equation of a straight line that is parallel to $y = 5x - 3$.

..... [1]

3 The equation of line L is $y = 4x - 3$.

Write down

(a) the co-ordinates of the point where the line L crosses the y -axis,

(.....,) [1]

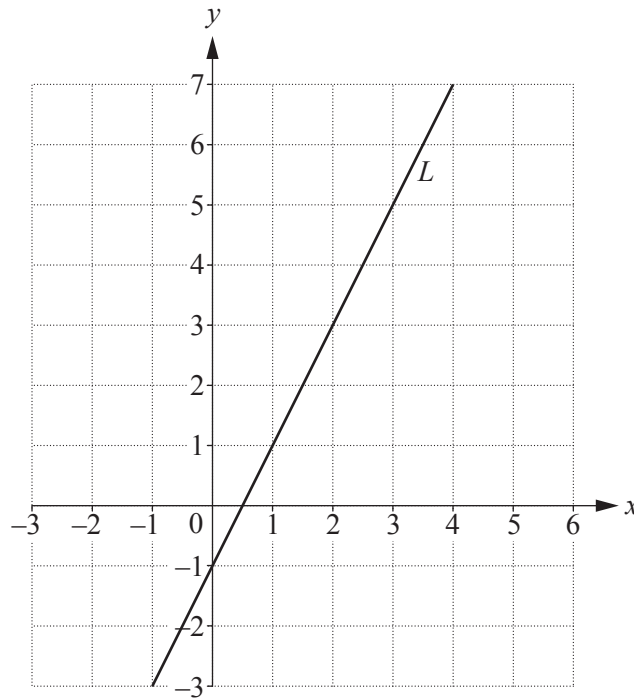
(b) the gradient of the line L ,

..... [1]

(c) the equation of the line parallel to line L that passes through the origin.

..... [1]

4



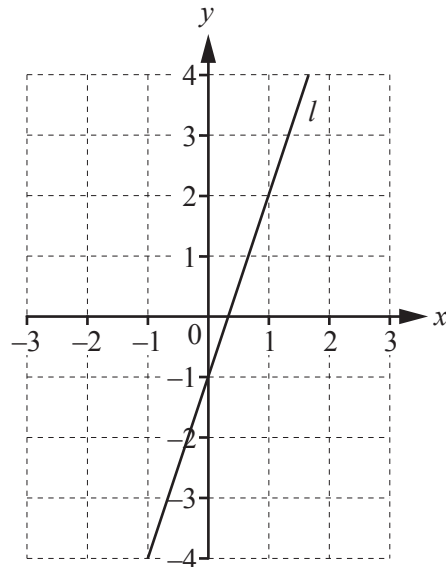
(a) Work out the gradient of the line L .

..... [2]

(b) Write down the equation of the line parallel to the line L that passes through the point $(0, 6)$.

..... [2]

5



Write down the equation of line l .
Give your answer in the form $y = mx + c$.

$y = \dots\dots\dots$ [3]

6 (a) Write down the co-ordinates of the point where the line $y = 3x + 5$ crosses the y -axis.

Answer(a) (.....,) [1]

(b) Write down the equation of a line that is parallel to the line $y = 3x + 5$.

Answer(b) [1]