

Gradients and $y = mx + c$

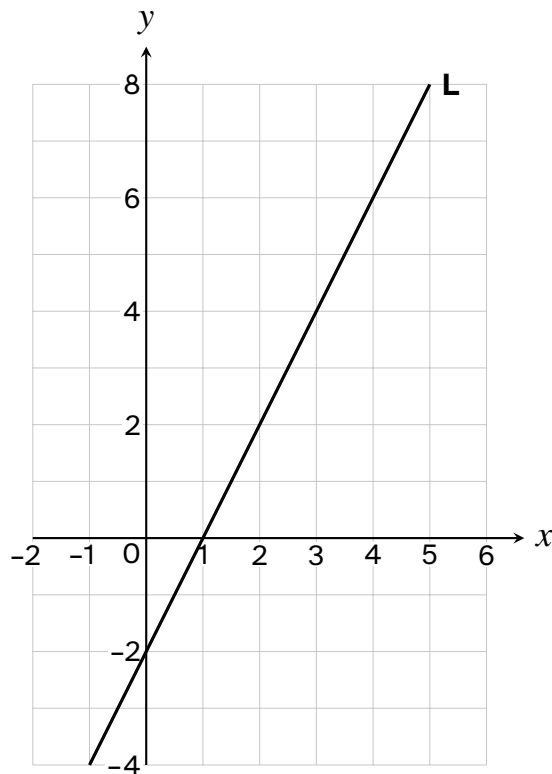
For Pearson Edexcel GCSE Mathematics (1MA1) • Foundation tier

Name _____

Total marks: **25**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

1 Line **L** is drawn on the grid.



Find the gradient of line **L**.

.....
(2)

(Total for Question 1 is 2 marks)

- 2 (a) Write down the gradient of the line with equation $y = 5x + 3$

.....
(1)

- (b) Write down the y -intercept of the line with equation $y = 7 - 2x$

.....
(1)

(Total for Question 2 is 2 marks)

- 3 Find an equation of the line that has gradient -3 and passes through the point $(0, 5)$.

.....
(2)

(Total for Question 3 is 2 marks)

- 4 Find the gradient of the straight line that passes through the points $A(1, 2)$ and $B(4, 17)$.

.....
(2)

(Total for Question 4 is 2 marks)

- 5 Find an equation of the straight line that passes through the points $(0, -1)$ and $(2, 7)$.

.....
(3)

(Total for Question 5 is 3 marks)

- 6 The equation of the line **M** is $y = 2x - 4$

Find an equation of the straight line that is parallel to **M** and passes through $(0, 3)$.

.....
(2)

(Total for Question 6 is 2 marks)

- 7 Here are the equations of two straight lines.

$$y = 5x + 2$$

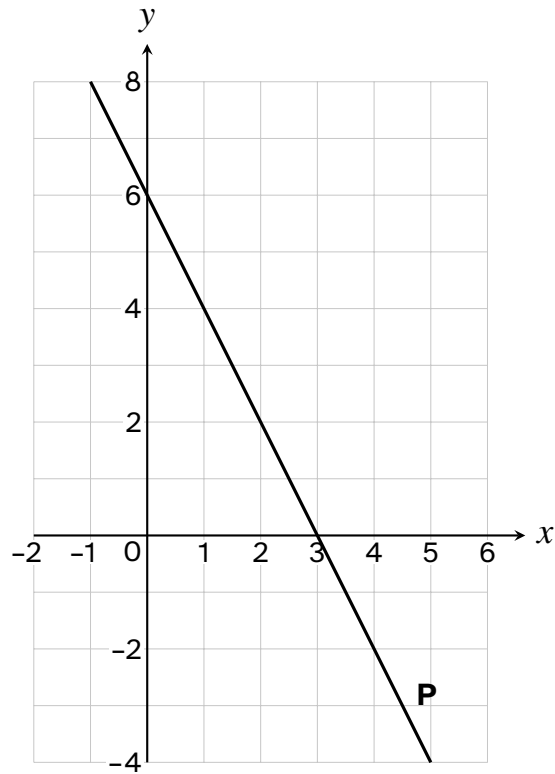
$$4y = 20x - 7$$

Show that these two lines are parallel.

(2)

(Total for Question 7 is 2 marks)

- 8 Line **P** is drawn on the grid.



Find an equation for line **P**.

.....
(3)

(Total for Question 8 is 3 marks)

- 9 Sam says,
‘The lines $y = 4x + 1$ and $y = 1 + 2x$ are parallel because they both have +1.’

Is Sam correct?

You must give a reason for your answer.

(1)

(Total for Question 9 is 1 mark)

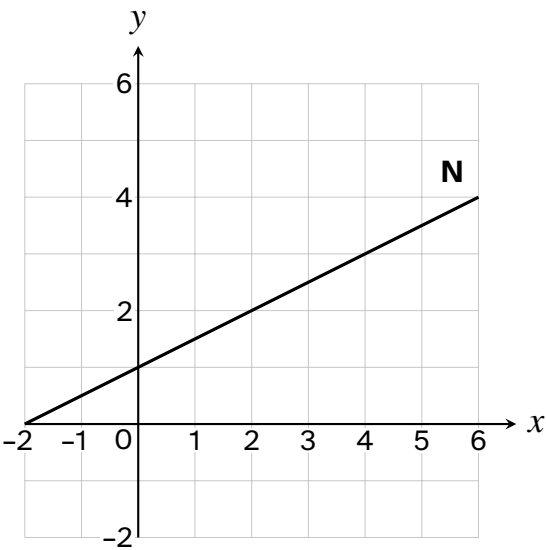
- 10 The straight line **T** passes through the points $(-2, 3)$ and $(4, 15)$
The point $(6, k)$ also lies on **T**.
Find the value of k .

$k = \dots\dots\dots$

(3)

(Total for Question 10 is 3 marks)

11 Line **N** is drawn on the grid.



Find an equation for line **N**.
Give your answer in the form $y = mx + c$

.....
(3)
(Total for Question 11 is 3 marks)