Equation of a Line

SCAN ME

REVISE THIS TOPIC

CHECK YOUR ANSWERS

SCAN ME

1 The equation of a straight line **L** is $y = 2x - 3$

(a) Write down the coordinates of the point where **L** crosses the y-axis.

(..... , ...)

(1)

(b) Write down the gradient of **L**.

.....

(1)

(Total for Question 1 is 2 marks)

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2 The equation of a straight line **L** is $y = 8 - 5x$

(a) Write down the coordinates of the point where **L** crosses the y-axis.

(..... , ...)

(1)

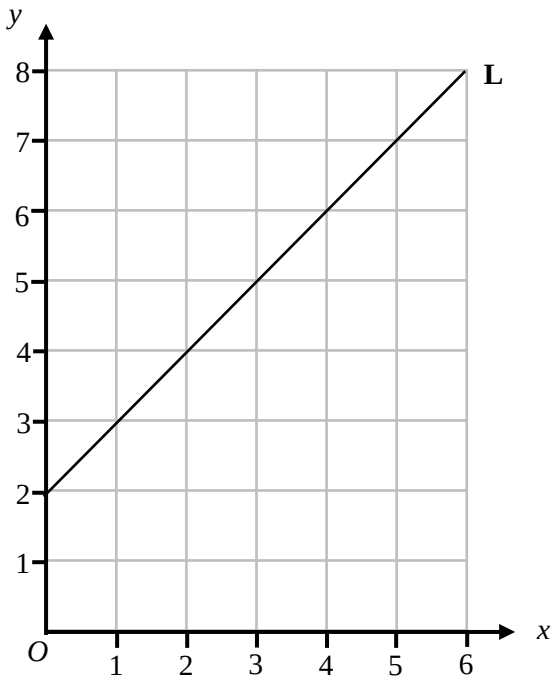
(b) Write down the gradient of **L**.

.....

(1)

(Total for Question 2 is 2 marks)

3 The line **L** is shown on the grid.



(a) Write down the coordinates of the point where **L** crosses the *y*-axis.

(..... , ...)

(1)

(b) Work out the gradient of **L**.

.....

(2)

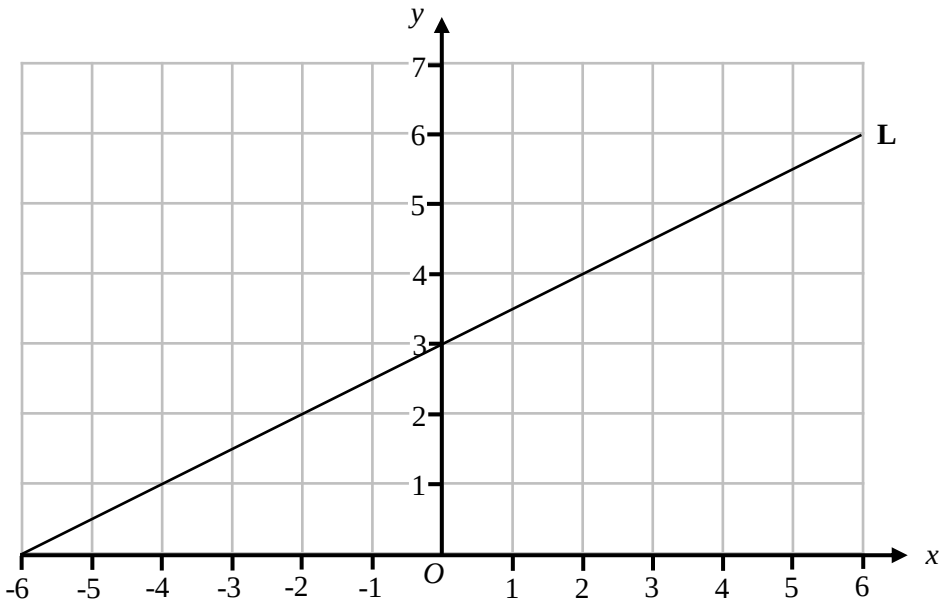
(c) Use your answers to parts (a) and (b) to write down the equation of the line **L**.
Give your answer in the form $y = mx + c$

.....

(1)

(Total for Question 3 is 4 marks)

4 The line **L** is shown on the grid.



(a) Write down the coordinates of the point where **L** crosses the *y*-axis.

(..... , ...)

(1)

(b) Work out the gradient of **L**.

.....

(2)

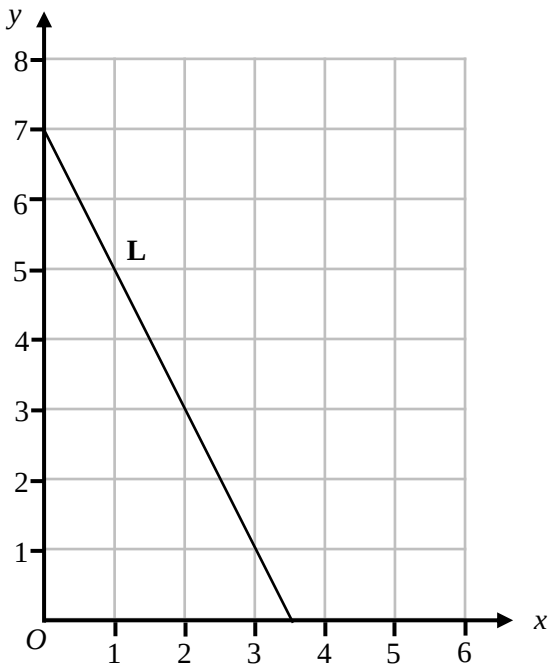
(c) Use your answers to parts (a) and (b) to write down the equation of the line **L**.
Give your answer in the form $y = mx + c$

.....

(1)

(Total for Question 4 is 4 marks)

5 The line **L** is shown on the grid.



(a) Write down the coordinates of the point where **L** crosses the *y*-axis.

(..... , ...)

(1)

(b) Work out the gradient of **L**.

.....

(2)

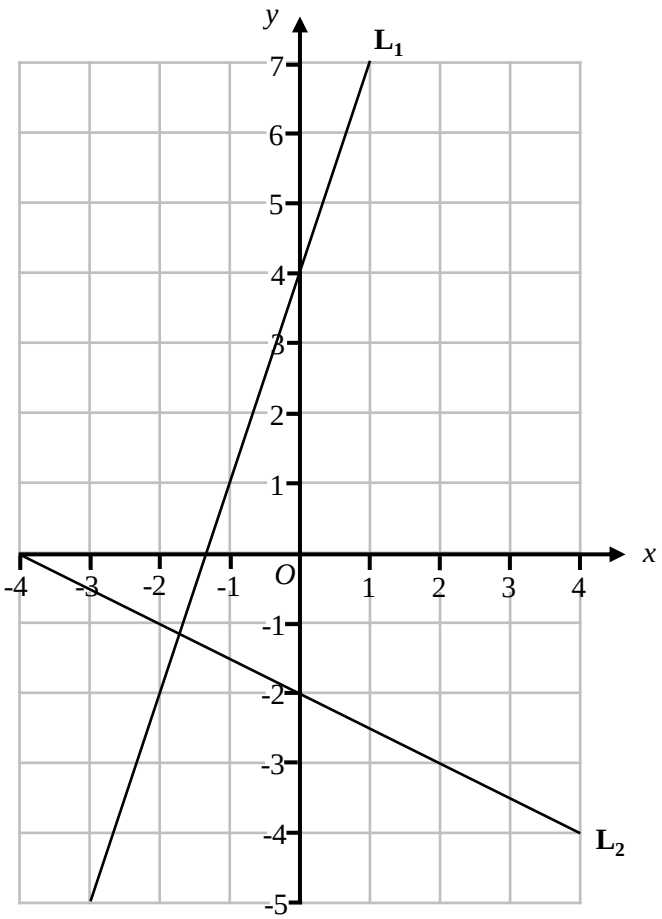
(c) Use your answers to parts (a) and (b) to write down the equation of the line **L**.
Give your answer in the form $y = mx + c$

.....

(1)

(Total for Question 5 is 4 marks)

6 The lines $\mathbf{L_1}$ and $\mathbf{L_2}$ are shown on the grid.



(a) Find and equation for $\mathbf{L_1}$

.....

(3)

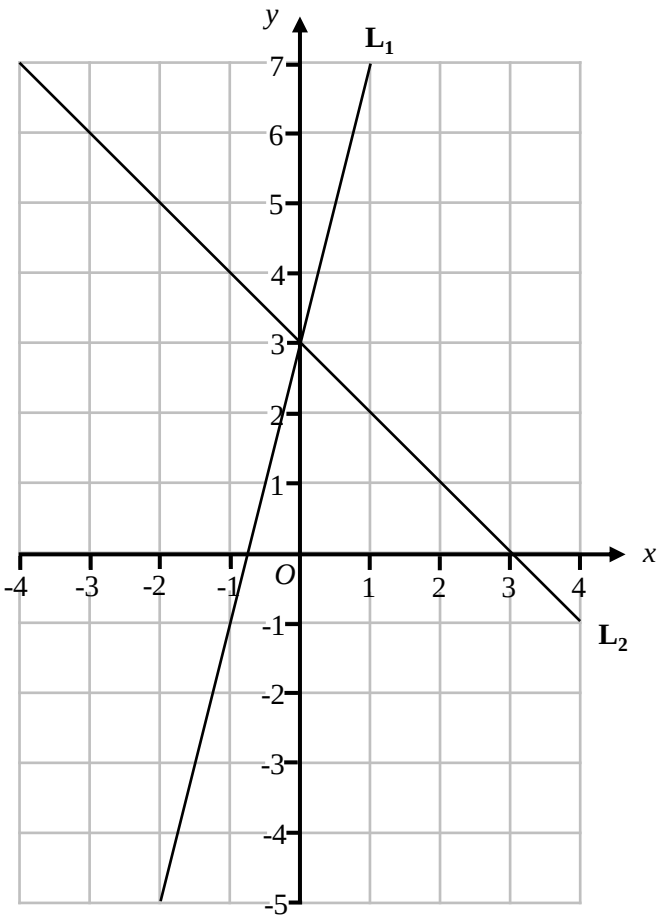
(b) Find and equation for $\mathbf{L_2}$

.....

(3)

(Total for Question 6 is 6 marks)

7 The lines $\mathbf{L_1}$ and $\mathbf{L_2}$ are shown on the grid.



(a) Find and equation for $\mathbf{L_1}$

.....

(3)

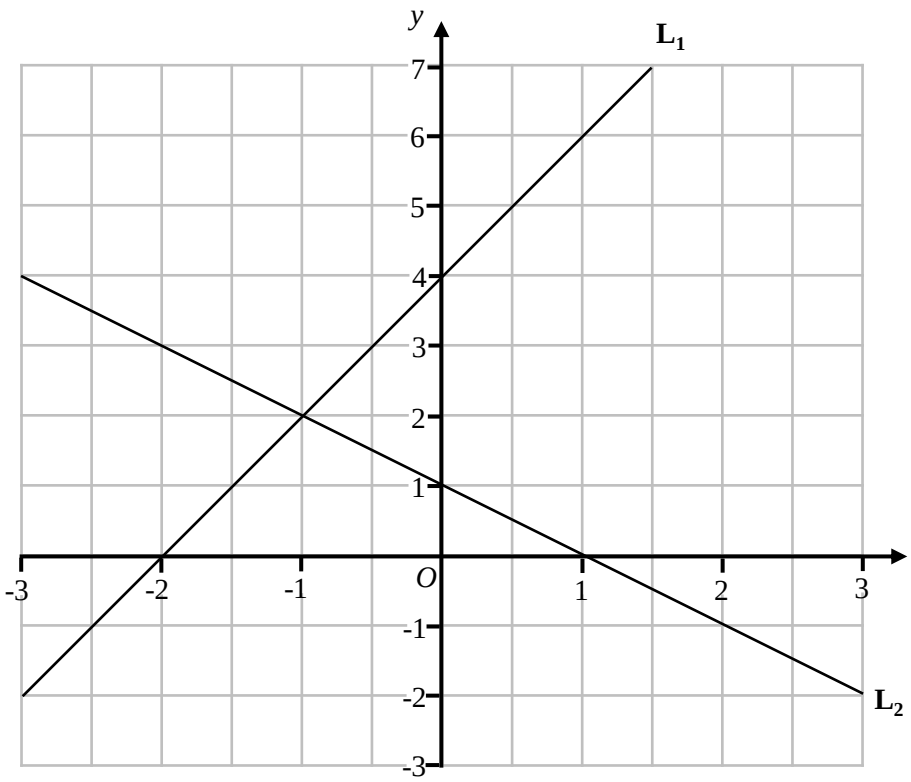
(b) Find and equation for $\mathbf{L_2}$

.....

(3)

(Total for Question 7 is 6 marks)

8 The lines $\mathbf{L_1}$ and $\mathbf{L_2}$ are shown on the grid.



(a) Find and equation for $\mathbf{L_1}$

.....

(3)

(b) Find and equation for $\mathbf{L_2}$

.....

(3)

(Total for Question 8 is 6 marks)

9 (a) Write down the coordinates of the y-intercept of the line $2y = 5x + 6$

(..... , ...)

(b) Write down the gradient of the line $2y = 5x + 6$

(1)

.....

(1)

(c) Is the point (2, 8) on the line $2y = 5x + 6$?
You must show your working.

.....

.....

.....

(2)

(Total for Question 9 is 4 marks)

10 (a) Write down the coordinates of the y-intercept of the line $y - 3x = 10$

(..... , ...)

(b) Write down the gradient of the line $y - 3x = 10$

(1)

.....

(1)

(c) Is the point (2, 8) on the line $y - 3x = 10$?
You must show your working.

.....

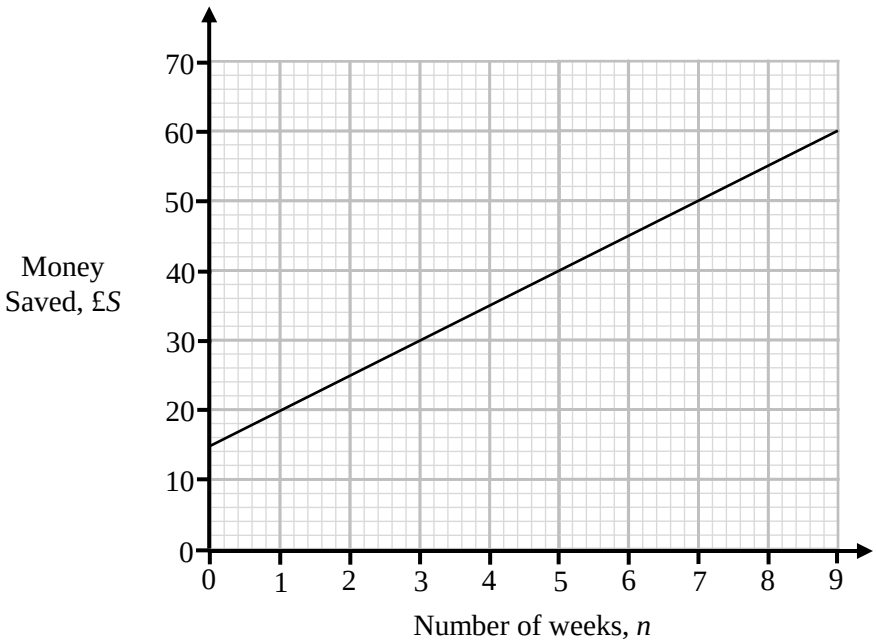
.....

.....

(2)

(Total for Question 10 is 4 marks)

11 The graph below shows the amount of money saved by a student.



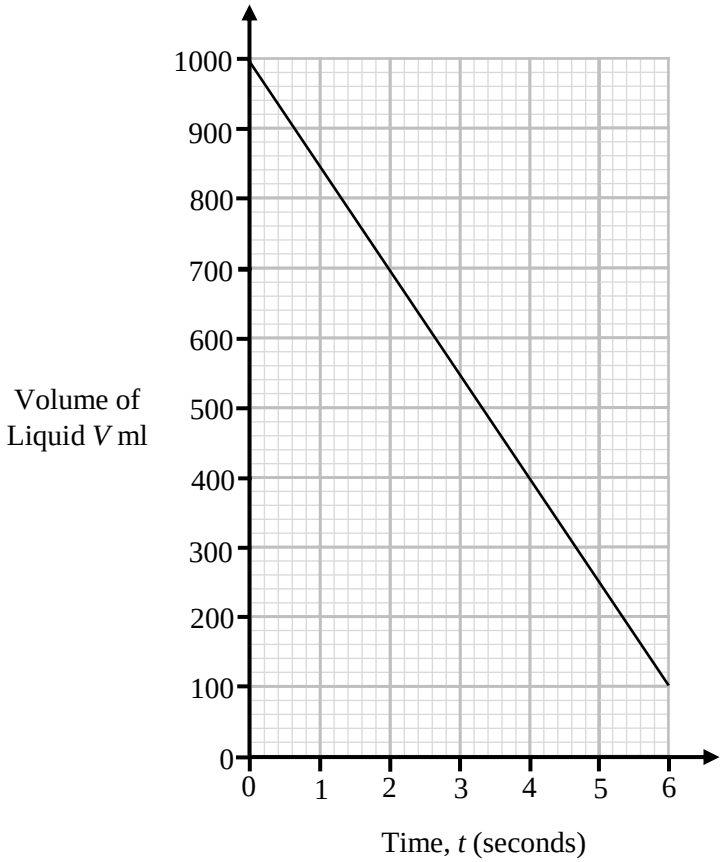
Work out a formula for S in terms of n.

.....

(Total for Question 11 is 3 marks)

Solutions

12 The graph below shows the amount of money saved by a student.



Work out a formula for V in terms of t.

.....

(Total for Question 12 is 3 marks)

Solutions

13 Work out the gradient of the straight line through (2, 8) and (5, 20)

.....

(Total for Question 13 is 2 marks)

14 Work out the gradient of the straight line through (2, 10) and (6, 8)

.....

(Total for Question 14 is 2 marks)

15 A straight line

has gradient 4
and
passes through the point (3, 10)

Work out the equation of the line.
Give your answer in the form $y = mx + c$

.....

(Total for Question 15 is 3 marks)

16 A straight line

has gradient -2
and
passes through the point (10, -17)

Work out the equation of the line.
Give your answer in the form $y = mx + c$

.....

(Total for Question 16 is 3 marks)

17 A straight line

has gradient 0.5
and
passes through the point (8, -3)

Work out the equation of the line.
Give your answer in the form $y = mx + c$

.....

(Total for Question 17 is 3 marks)

18 Work out the equation of the straight line through (3, 5) and (6, 11)

.....

(Total for Question 18 is 4 marks)

19 Work out the equation of the straight line through (-4, 2) and (2, 5)

.....

(Total for Question 19 is 4 marks)

20 Work out the equation of the straight line through (3, 16) and (8, 1)

.....

(Total for Question 20 is 4 marks)

Solutions