

A24 Straight Line Graphs...  
Using table of values

OCR

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(a) (i) Complete this table for  $y = 3x - 5$ .

$x$	0	1	2	3
$y$	-5		1	

(ii) Draw the graph of  $y = 3x - 5$  on the grid below.

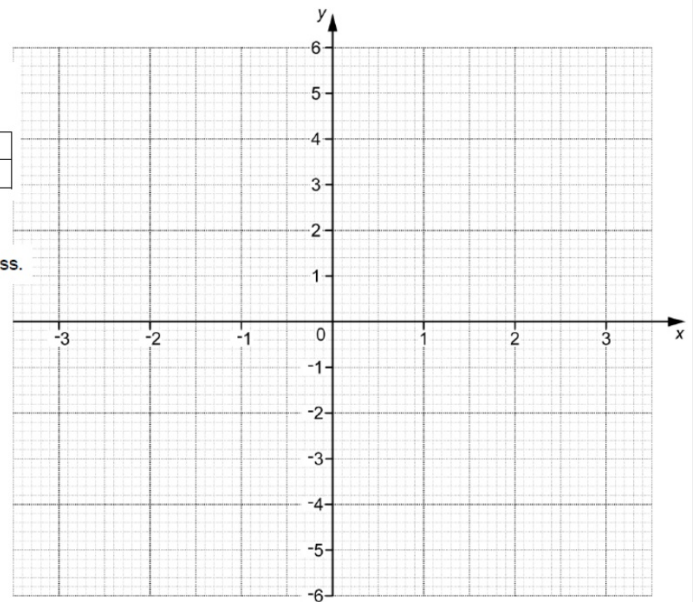
(b) (i) Complete this table for  $y = x^2 - 4$ .

$x$	-3	-2	-1	0	1	2	3
$y$		0	-3		-3		

(ii) Draw the graph of  $y = x^2 - 4$  on the grid

(c) Write down the  $x$ -coordinates of the points where  $y = 3x - 5$  and  $y = x^2 - 4$  cross.

(c)  $x = \dots\dots\dots$  and  $x = \dots\dots\dots$  [2]



(a) (i) Complete this table for  $y = 3x - 5$ .

x	0	1	2	3
y	-5	-2	1	4

(ii) Draw the graph of  $y = 3x - 5$  on the grid below.

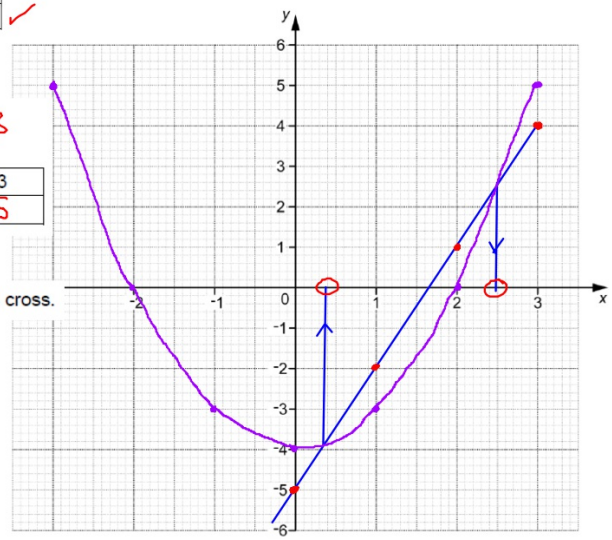
(b) (i) Complete this table for  $y = x^2 - 4$ .

$U \quad -3^2 = -3 \times -3 = 9$

x	-3	-2	-1	0	1	2	3
y	5	0	-3	-4	-3	0	5

(ii) Draw the graph of  $y = x^2 - 4$  on the grid.

(c) Write down the x-coordinates of the points where  $y = 3x - 5$  and  $y = x^2 - 4$  cross.



(c)  $x = 0.4$  ✓ and  $x = 2.5$  ✓ [2]

0.4 ✓      2.6  
 ±0.1 away

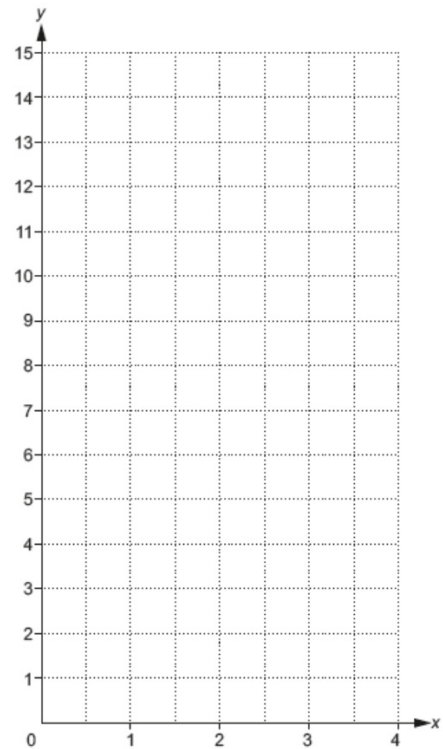
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11 (a) Complete this table for  $y = 3x + 2$ .

$x$	0	1	2	3	4
$y$	2		8		14

[1]

(b) On the grid below, draw the graph of  $y = 3x + 2$  for values of  $x$  from 0 to 4.



(c) Write down an equation for a line parallel to the line  $y = 3x + 2$ .

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11 (a) Complete this table for  $y = 3x + 2$ .

x	0	1	2	3	4
y	2	5	8	11	14

(b) On the grid below, draw the graph of  $y = 3x + 2$  for values of x from 0 to 4.

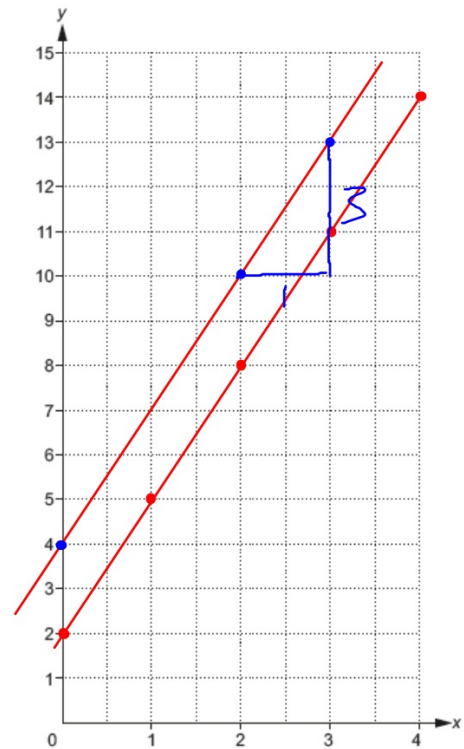
[1]

$$\frac{v}{n} = \frac{3}{1} = 3$$

gradient

(c) Write down an equation for a line parallel to the line  $y = 3x + 2$ .

$$y = 3x + 4$$



5 (a) Complete this table for  $y = x^2 + x - 4$ .

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x	-4	-3	-2	-1	0	1	2	3
y		2		-4	-4		2	

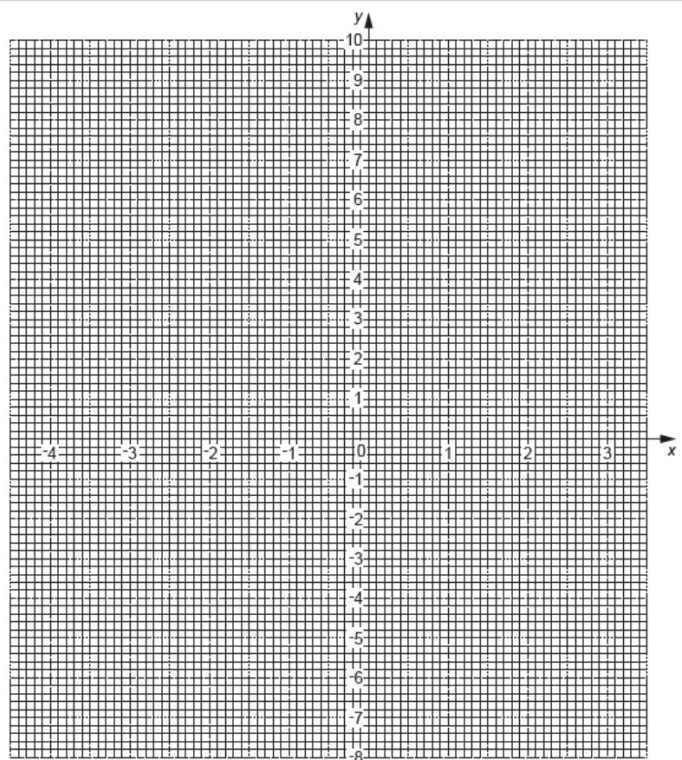
(b) Draw the graph of  $y = x^2 + x - 4$  for  $-4 \leq x \leq 3$ .

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(c) Use your graph to solve  $x^2 + x - 4 = 0$ .

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(c)  $x = \dots\dots\dots$  or  $x = \dots\dots\dots$  [2]



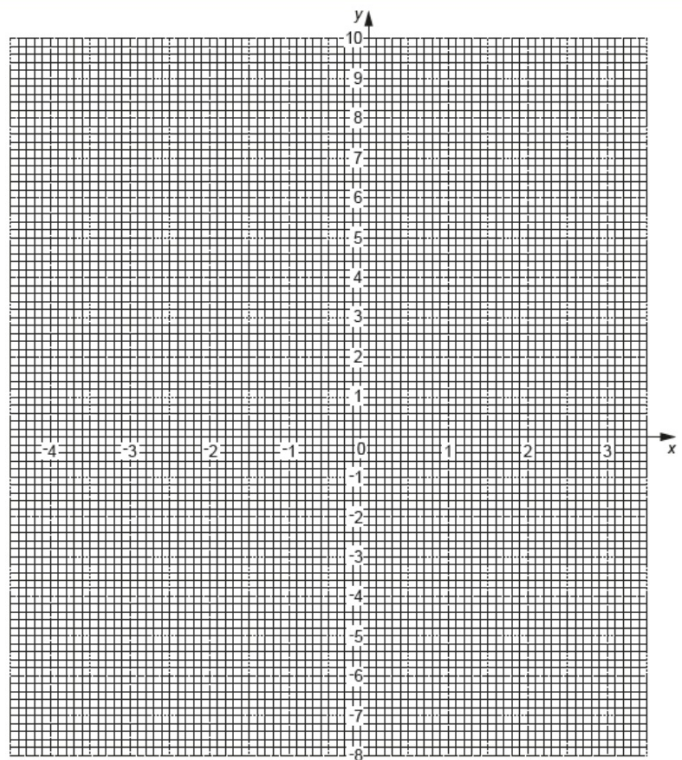
- (d) On the same grid, draw the graph of  $y = -2x - 1$  for  $-4 \leq x \leq 3$ .  
You may use the table if you wish.

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$x$	-4		
$y$	7		

- (e) Use your graphs to solve the equation  $x^2 + x - 4 = -2x - 1$ .

(e)  $x = \dots\dots\dots$  or  $x = \dots\dots\dots$  [2]





5 (a) Complete this table for  $y = x^2 + x - 4$ .

A35

x	-4	-3	-2	-1	0	1	2	3
y	8	2	-2	-4	-4	-2	2	8

$$\begin{aligned} 2^2 + 3 - 4 \\ 9 + 3 - 4 \end{aligned}$$

(b) Draw the graph of  $y = x^2 + x - 4$  for  $-4 \leq x \leq 3$ .

A35

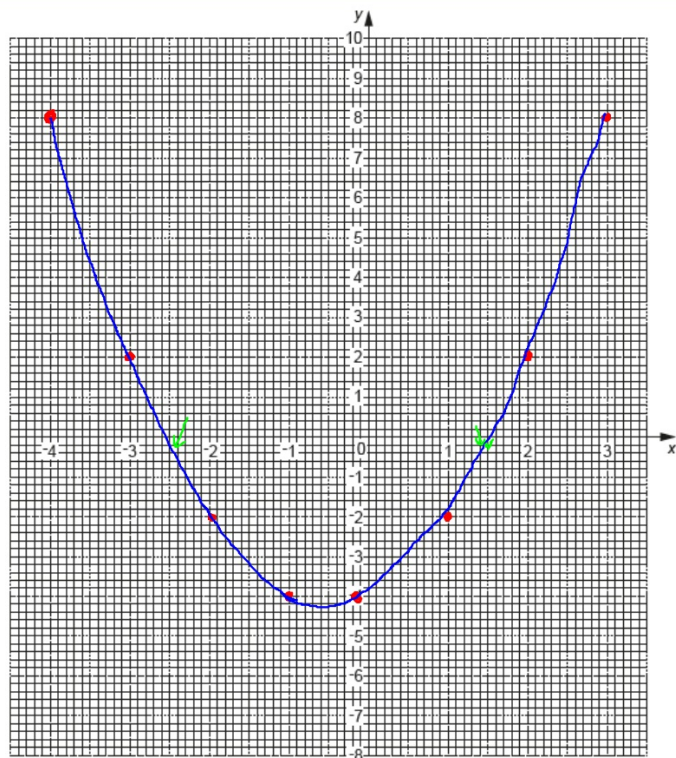
$$y = x^2 + x - 4$$

(c) Use your graph to solve  $x^2 + x - 4 = 0$ .

A36

$$y = 0$$

(c)  $x = -2.5$  or  $x = 1.5$  [2]  
 $-2.5 \rightarrow -2.7$      $1.5 \rightarrow 1.7$



- (d) On the same grid, draw the graph of  $y = -2x - 1$  for  $-4 \leq x \leq 3$ .  
You may use the table if you wish.

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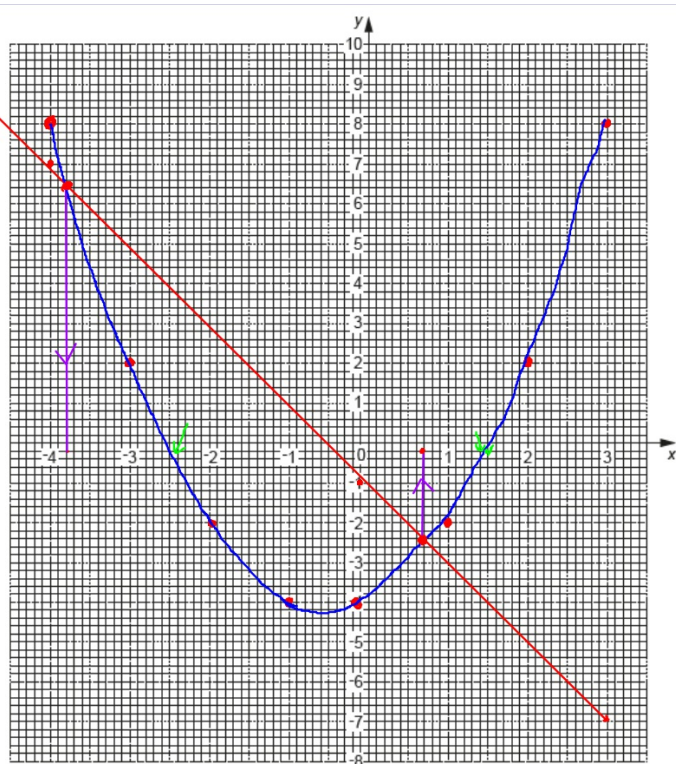
x	-4	0	3
y	7	-1	-7

$-2 \times 3$   
 $= -6 - 1$   
 $= -7$

- (e) Use your graphs to solve the equation  $x^2 + x - 4 = -2x - 1$ .

U

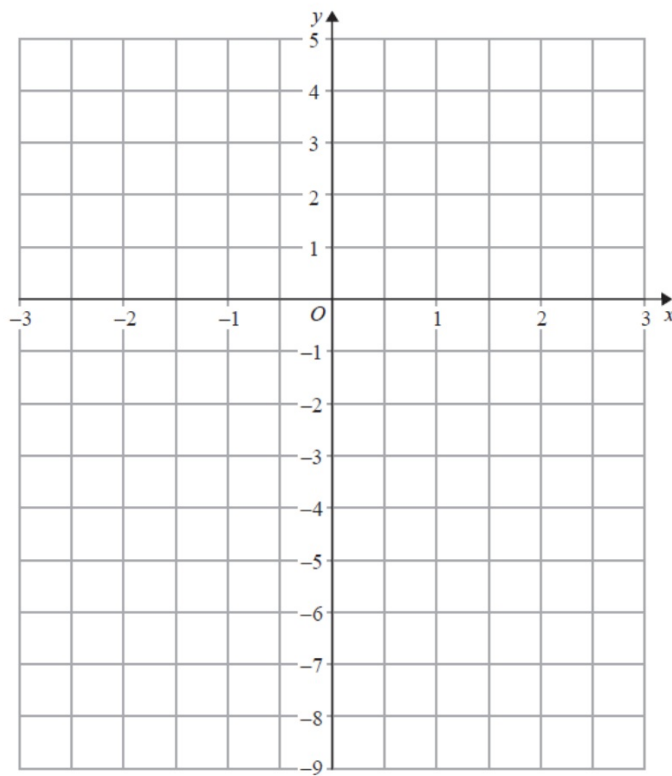
(e)  $x = -3.8$  or  $x = 0.8$  [2]  
 $-3.7 \rightarrow -3.9$        $0.7 - 0.9$



Edexcel

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14 On the grid, draw the graph of  $y = 2x - 2$  for values of  $x$  from  $-3$  to  $3$

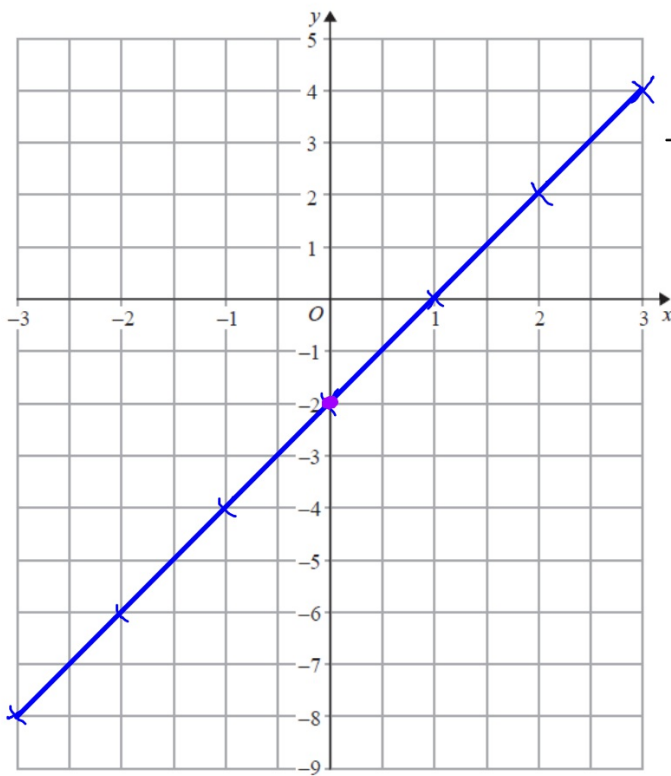


\_\_\_\_\_

(Total for Question 14 is 3 marks)

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14 On the grid, draw the graph of  $y = 2x - 2$  for values of  $x$  from  $-3$  to  $3$



table

x	-3	-2	-1	0	1	2	3
y	-8	-6	-4	-2	0	2	4

$$y = mx + c$$

↓                      ↓  
gradient              y-intercept

$$\frac{v}{h} = \frac{2}{1}$$

(Total for Question 14 is 3 marks)

17 (a) Complete the table of values for  $y = 2x - 1$

A24

$x$	-2	-1	0	1	2	3
$y$		-3				5

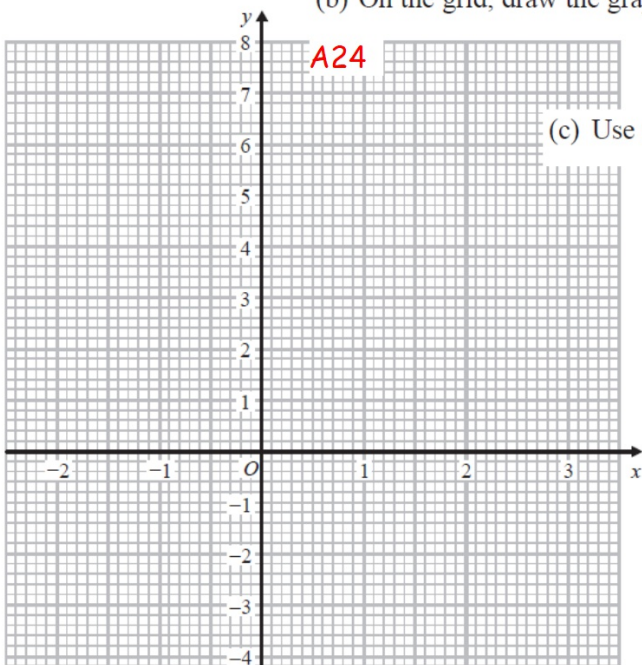
(2)

(b) On the grid, draw the graph of  $y = 2x - 1$  for values of  $x$  from  $-2$  to  $3$  (2)

A24

(c) Use your graph to find the value of  $x$  when  $y = 0.4$

.....  
(1)



17 (a) Complete the table of values for  $y = 2x - 1$

A24

$x$	-2	-1	0	1	2	3
$y$	-5	-3	-1	1	3	5

(2)

$$\begin{aligned} & -2 \times 2 - 1 \\ & -4 - 1 \\ & = -5 \end{aligned}$$



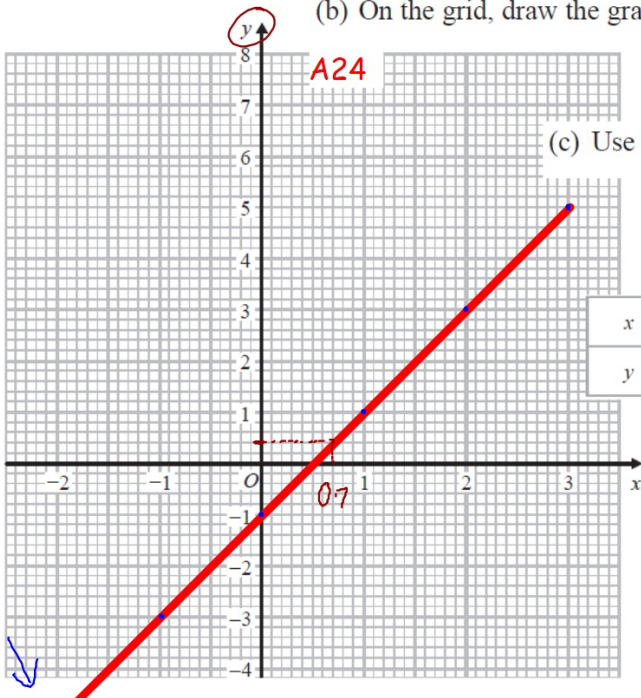
(b) On the grid, draw the graph of  $y = 2x - 1$  for values of  $x$  from  $-2$  to  $3$

(2)

A24

(c) Use your graph to find the value of  $x$  when  $y = 0.4$

0.7 ✓  
(1)



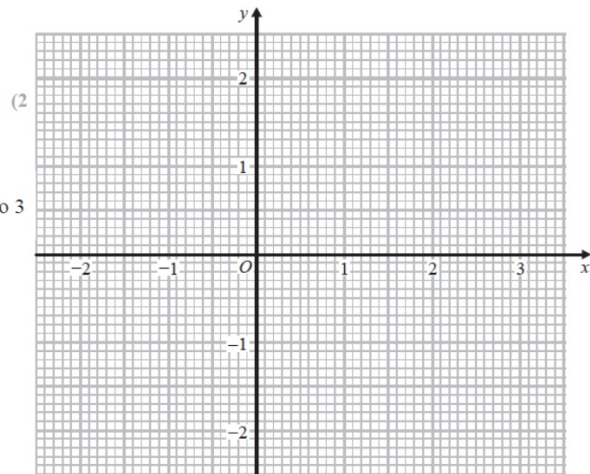
x	-2	-1	0	1	2	3
y	-5	-3	-1	1	3	5

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13 (a) Complete the table of values for  $y = \frac{1}{2}x - 1$

$x$	-2	-1	0	1	2	3
$y$	-2				0	

(b) On the grid, draw the graph of  $y = \frac{1}{2}x - 1$  for values of  $x$  from -2 to 3



(c) Use your graph to find the value of  $x$  when  $y = 0.3$

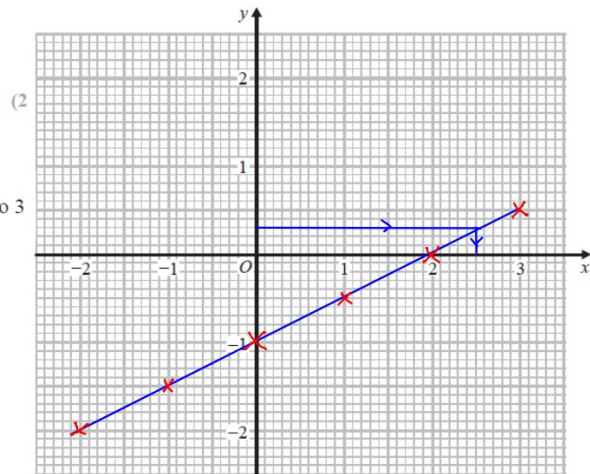
13 (a) Complete the table of values for  $y = \frac{1}{2}x - 1$

x	-2	-1	0	1	2	3
y	-2	-1.5	-1	-0.5	0	0.5

$$3 \times \frac{1}{2} = 1\frac{1}{2} - 1 = \frac{1}{2}$$

$$1 \times \frac{1}{2} = \frac{1}{2} - 1 = -0.5$$

(b) On the grid, draw the graph of  $y = \frac{1}{2}x - 1$  for values of  $x$  from -2 to 3



(c) Use your graph to find the value of  $x$  when  $y = 0.3$

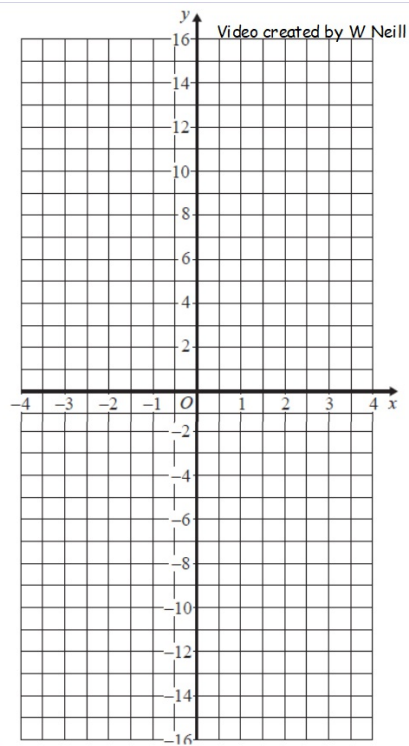
$$2.5 \checkmark$$

$$2.5, 2.6, 2.7 \checkmark$$

25 On the grid below, draw the graph of  $y = 1 - 4x$  for values of  $x$  from  $-3$  to  $3$

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A25



(Total for Question 25 is 3 marks)

25 On the grid below, draw the graph of  $y = 1 - 4x$  for values of  $x$  from  $-3$  to  $3$

A24  
A25

x	-3	-2	-1	0	1	2	3
y	13	9	5	1	-3	-7	-11

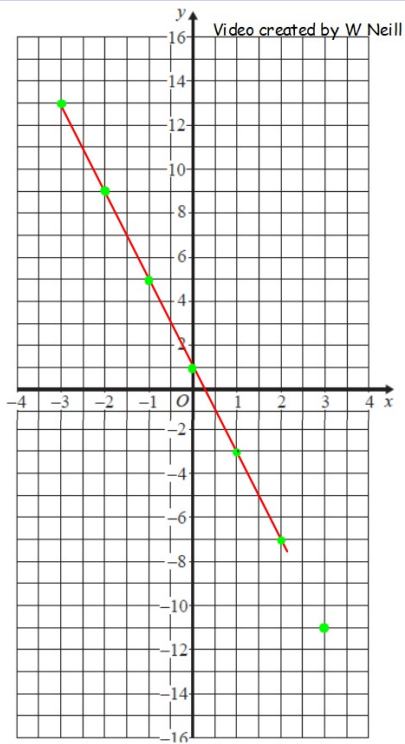
$$1 - (4x - 1)$$

$$1 - -4$$

$$1 + 4$$

$$y = mx + c$$

$$y = -4x + 1$$



(Total for Question 25 is 3 marks)

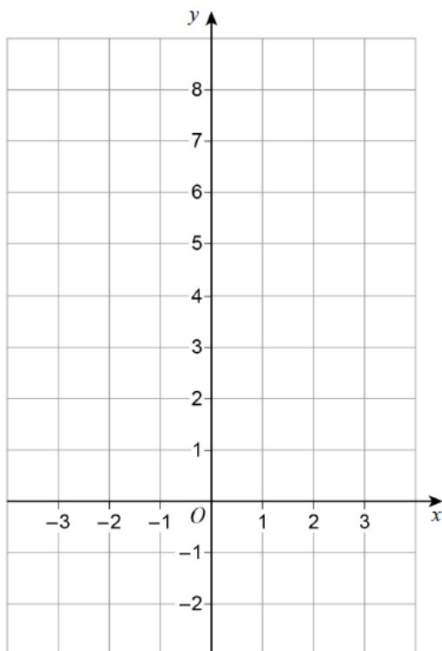
AQA

16 (b) Draw the line  $3x + 2y = 6$  for values of  $x$  from  $-3$  to  $3$

Video created by W Neill

[2 marks]

A24  
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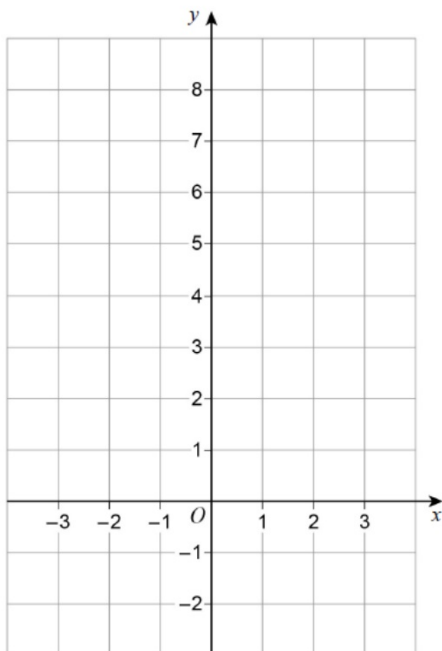


16 (b) Draw the line  $3x + 2y = 6$  for values of  $x$  from  $-3$  to  $3$

Video created by W Neill

[2 marks]

A24  
A25



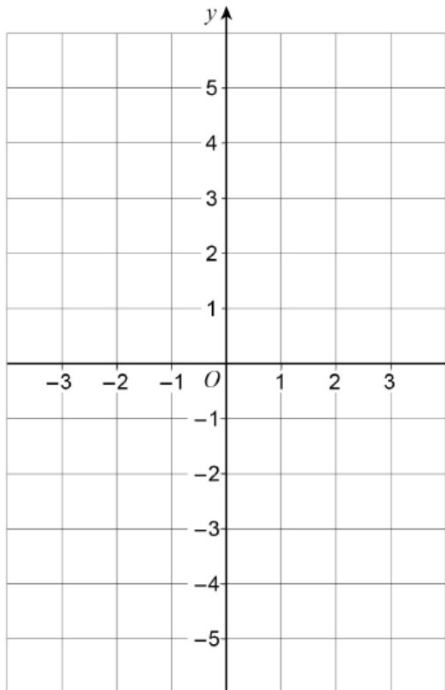


14 On the grid, draw the graph of  $x + y = 2$  for values of  $x$  from  $-3$  to  $3$

Video created by W Neill

[2 marks]

A24



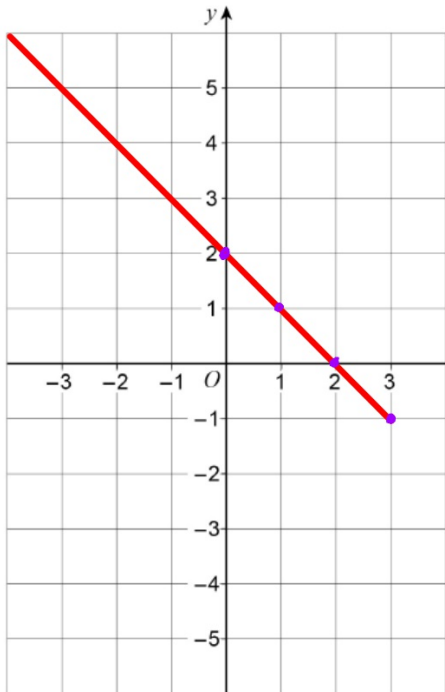
14

On the grid, draw the graph of  $x + y = 2$  for values of  $x$  from  $-3$  to  $3$

Video created by W Neill

[2 marks]

A24



$$\begin{array}{l} x \quad y \\ (0, 2) = 2 \\ (2, 0) = 2 \\ (1, 1) = 2 \\ (3, -1) = 2 \end{array}$$

$$\begin{array}{c|c} x & 3 \\ \hline y & -1 \end{array}$$

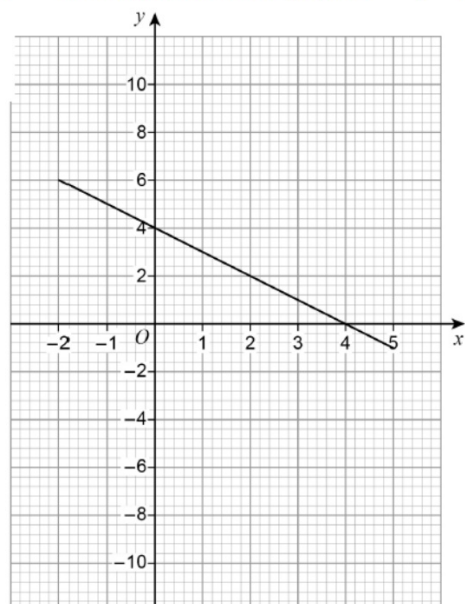
15 The graph of  $y = 4 - x$  for values of  $x$  from  $-2$  to  $5$  is shown on the grid.

15 (a) On the grid, draw the graph of  $y = 2x - 5$  for values of  $x$  from  $-2$  to  $5$

[3 marks]

A24

A25



15 (b) Use your graph to solve  $2x - 5 = 4 - x$

[1 mark]

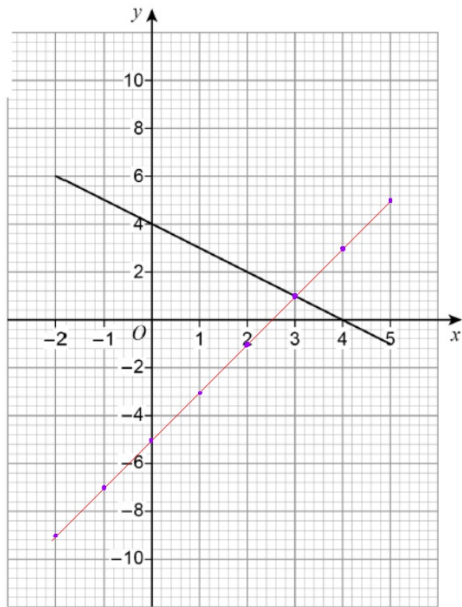
$x =$  \_\_\_\_\_

15 The graph of  $y = 4 - x$  for values of  $x$  from  $-2$  to  $5$  is shown on the grid.

15 (a) On the grid, draw the graph of  $y = 2x - 5$  for values of  $x$  from  $-2$  to  $5$

[3 marks]

A24  
A25



x	-2	-1	0	1	2	3	4	5
y	-9	-7	-5	-3	-1	1	3	5

15 (b) Use your graph to solve

*Cross*  
 $2x - 5 = 4 - x$

[1 mark]

$x = \underline{3}$  ✓