A054 Linear and quadratic graphs

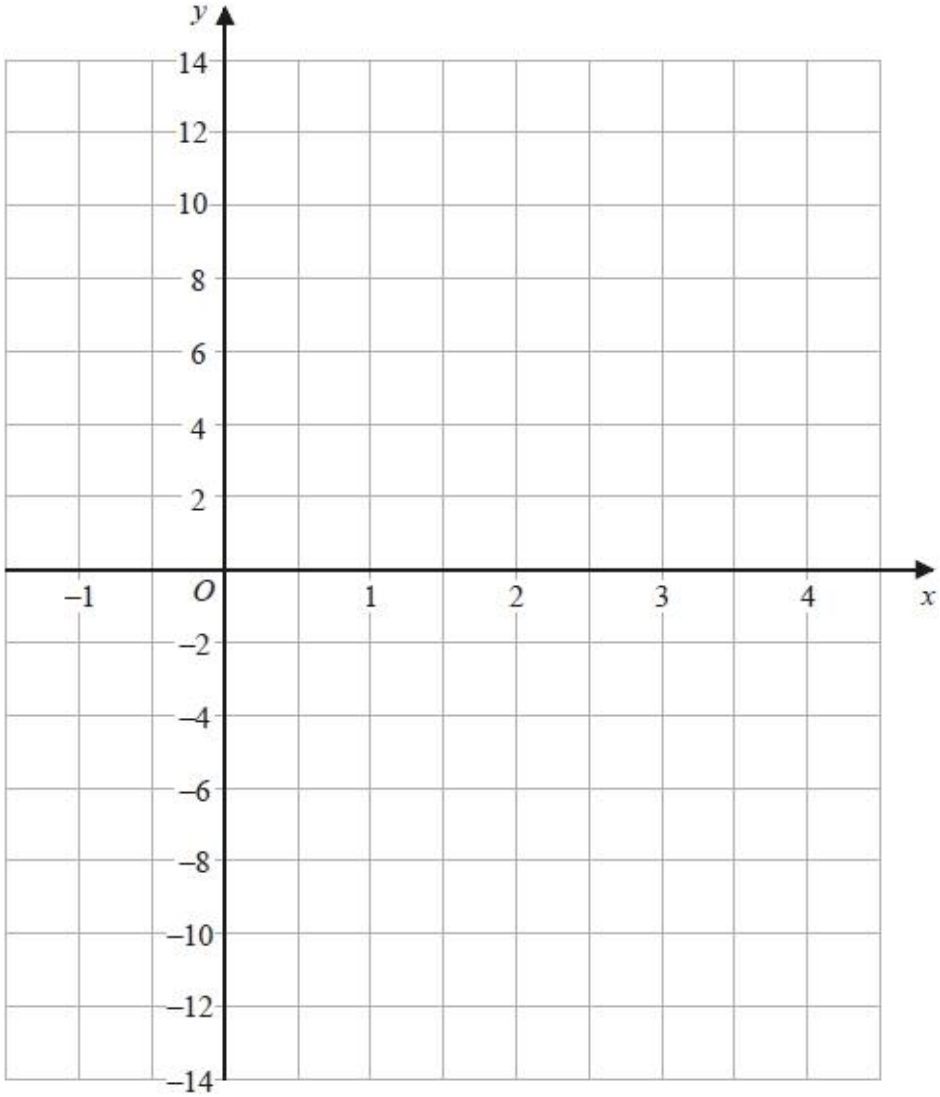
Q1.

(a) Complete the table of values for $y = 4x - 6$

x	−1	0	1	2	3	4
y			−2			10

(2)

(b) On the grid, draw the graph of $y = 4x - 6$ for values of x from −1 to 4



(2)

(Total for question = 4 marks)

Q2.

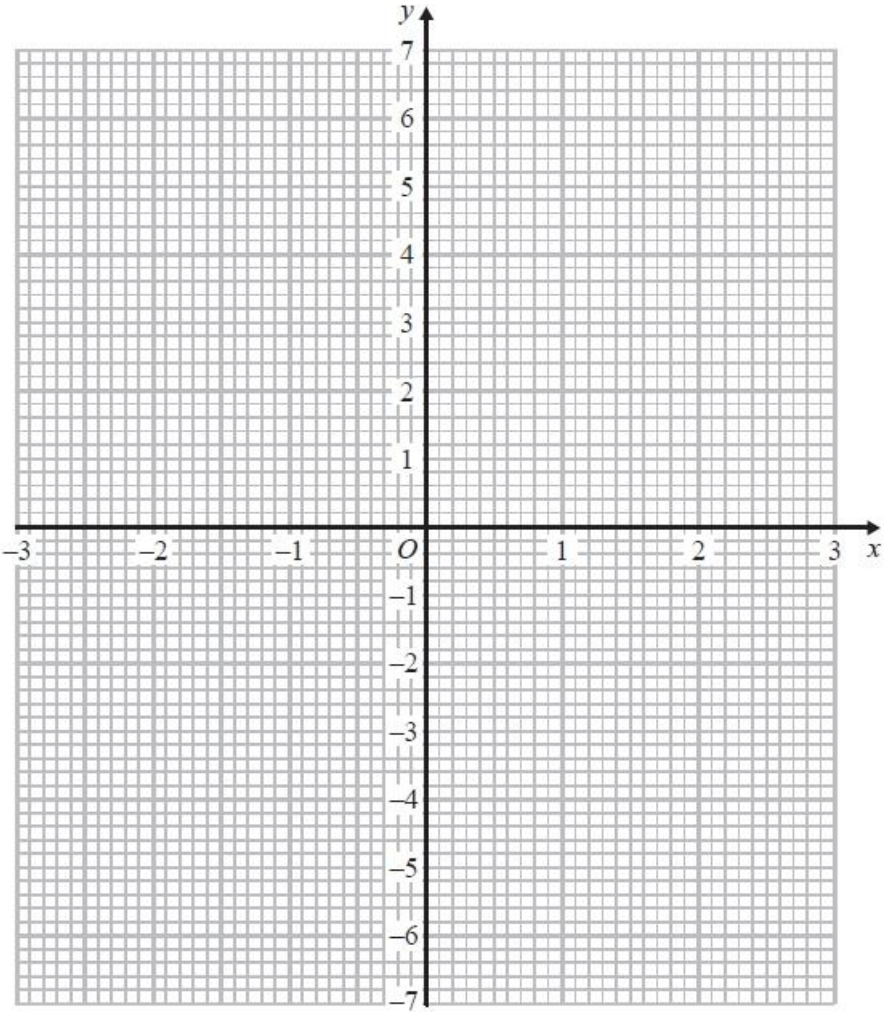
(a) Complete the table of values for $y = x^2 - x - 6$

x	–3	–2	–1	0	1	2	3
y	6			– 6			

(2)

(b) On the grid, draw the graph of $y = x^2 - x - 6$ for values of x from –3 to 3

(2)



(c) Use your graph to find estimates of the solutions to the equation $x^2 - x - 6 = -2$

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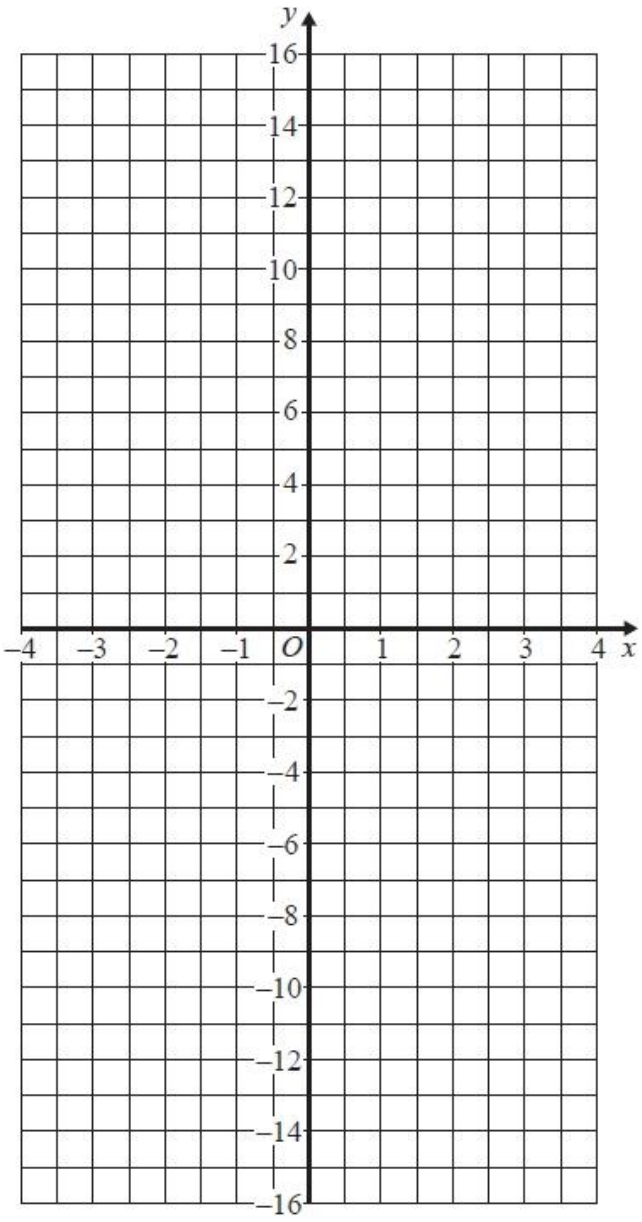
(2)

(Total for question = 6 marks)

Q3.

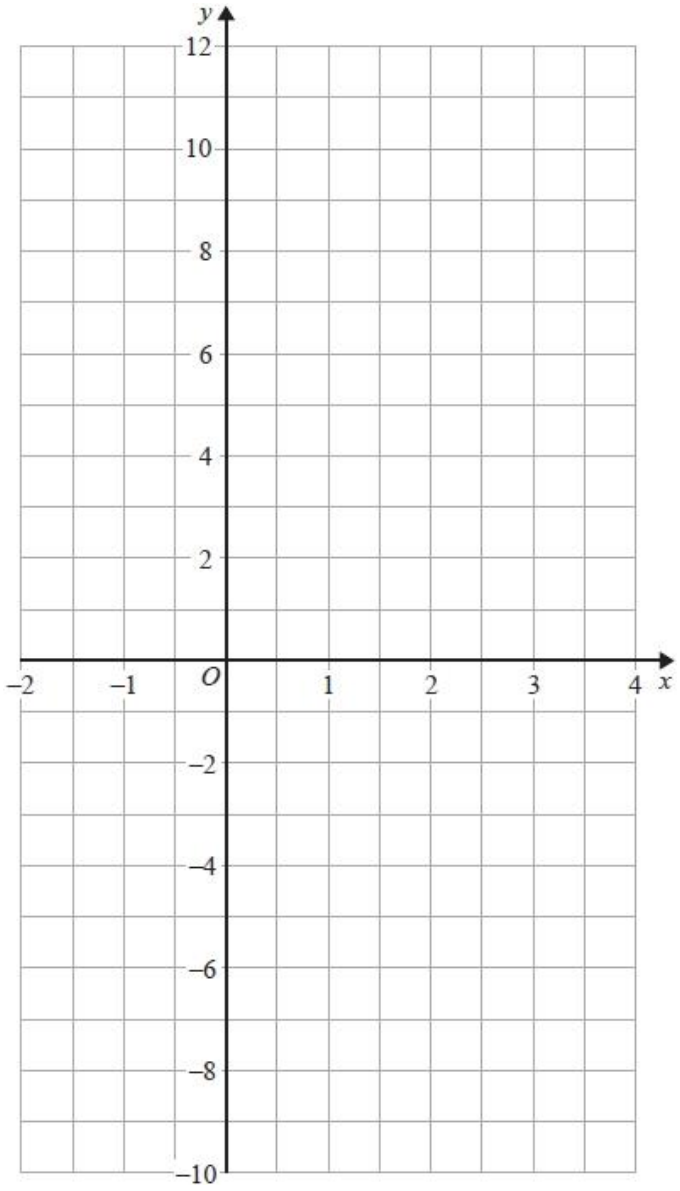
On the grid below, draw the graph of $y = 1 - 4x$ for values of x from – 3 to 3



(Total for question = 3 marks)

Q4.

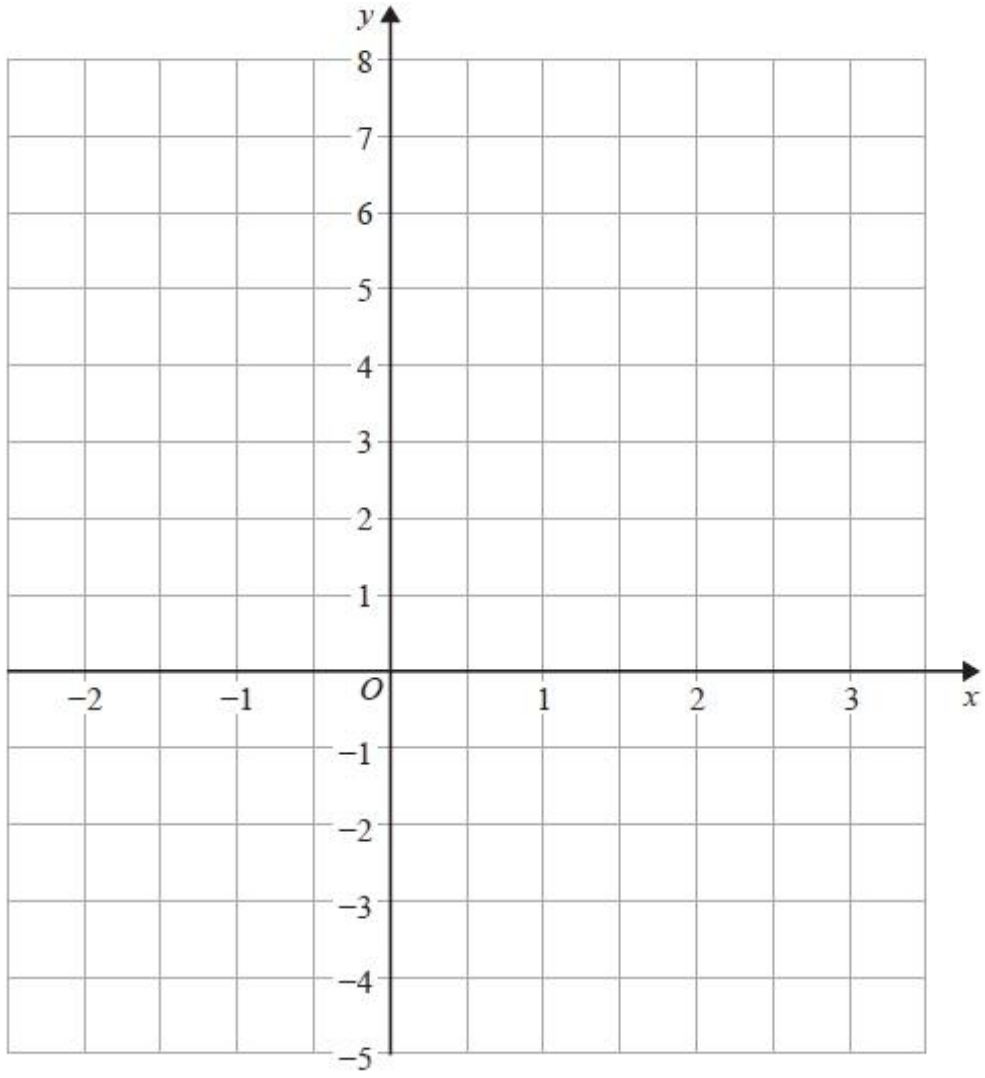
On the grid, draw the graph of $y = 3x - 2$ for values of x from –2 to 4



(Total for question = 3 marks)

Q5.

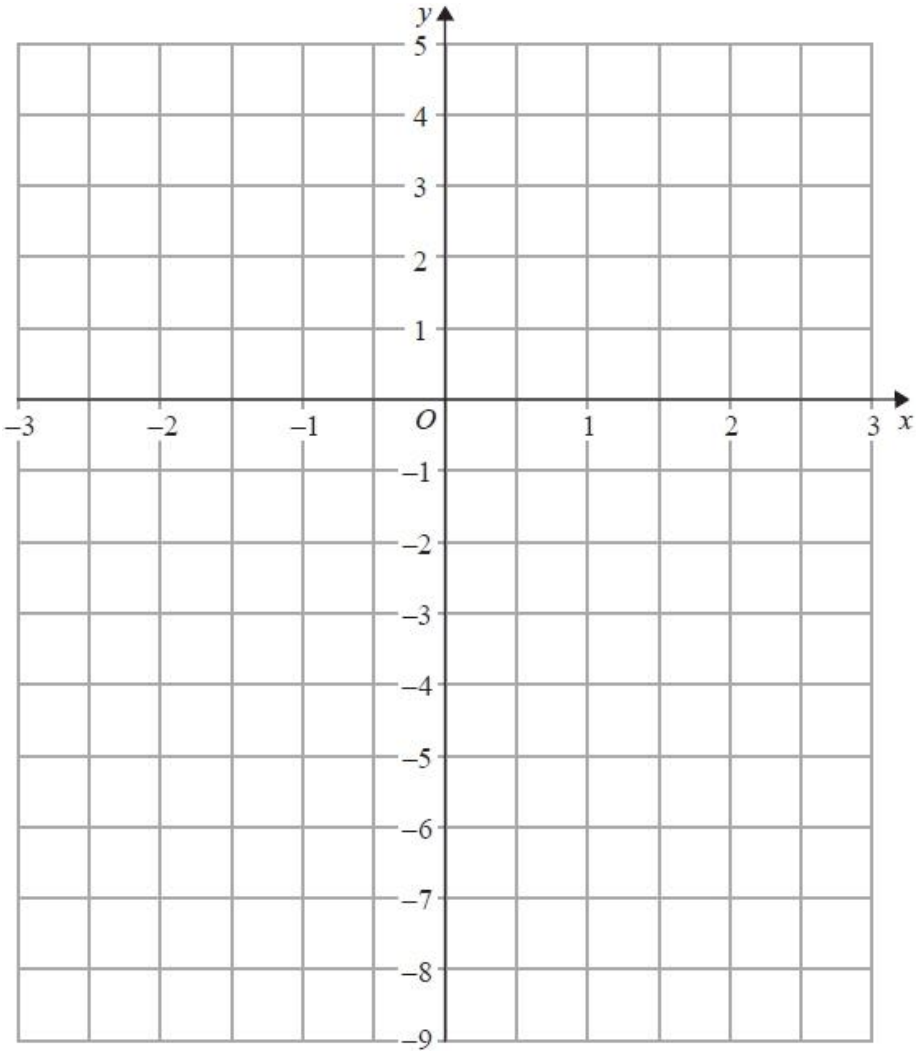
On the grid, draw the graph of $y = 2x + 1$ for values of x from –2 to 3



(Total for question = 3 marks)

Q6.

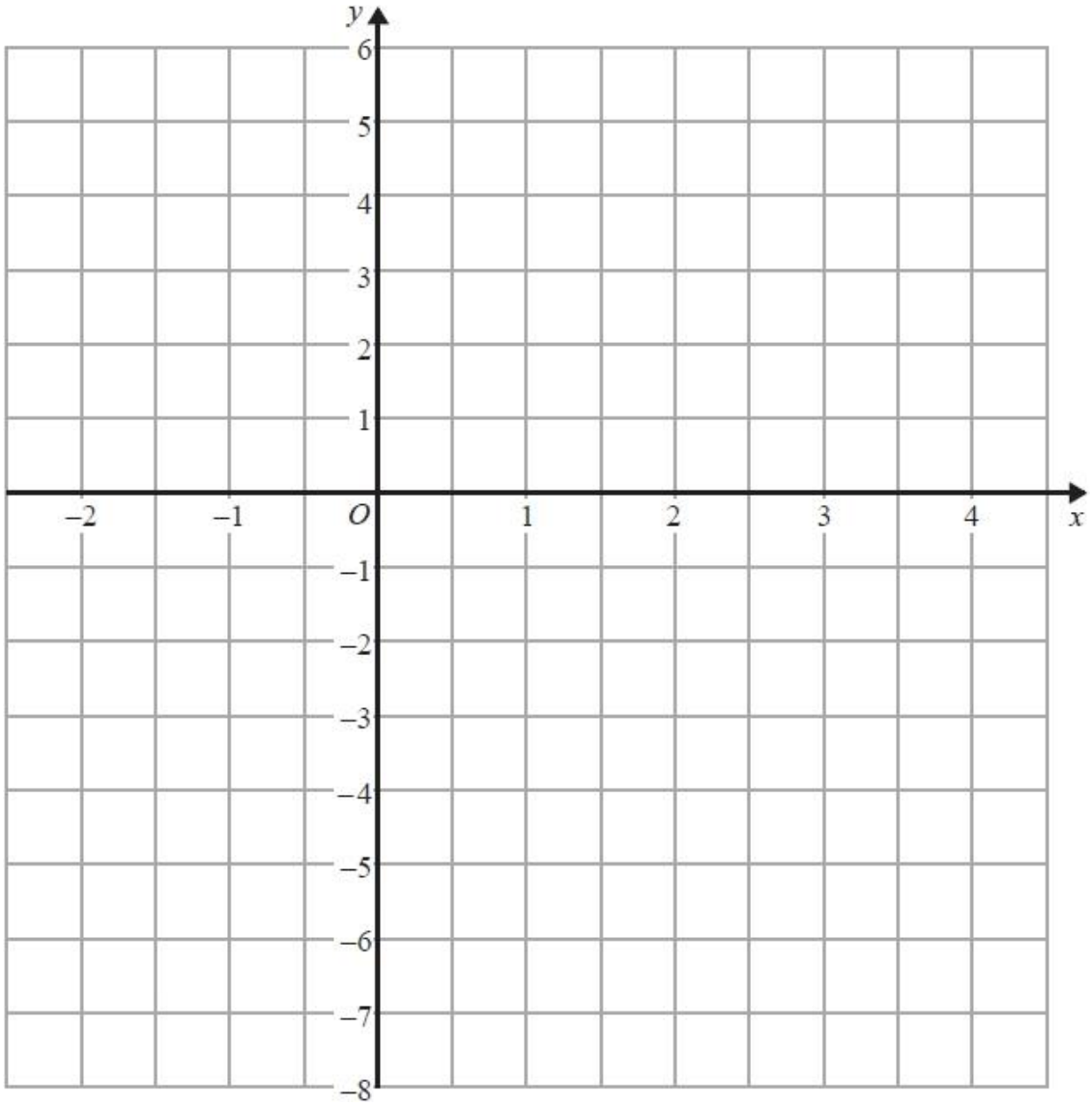
On the grid, draw the graph of $y = 2x - 2$ for values of x from −3 to 3



(Total for question = 3 marks)

Q7.

On the grid below, draw the graph of $y = 2x - 3$ for values of x from -2 to 4



(Total for question = 3 marks)

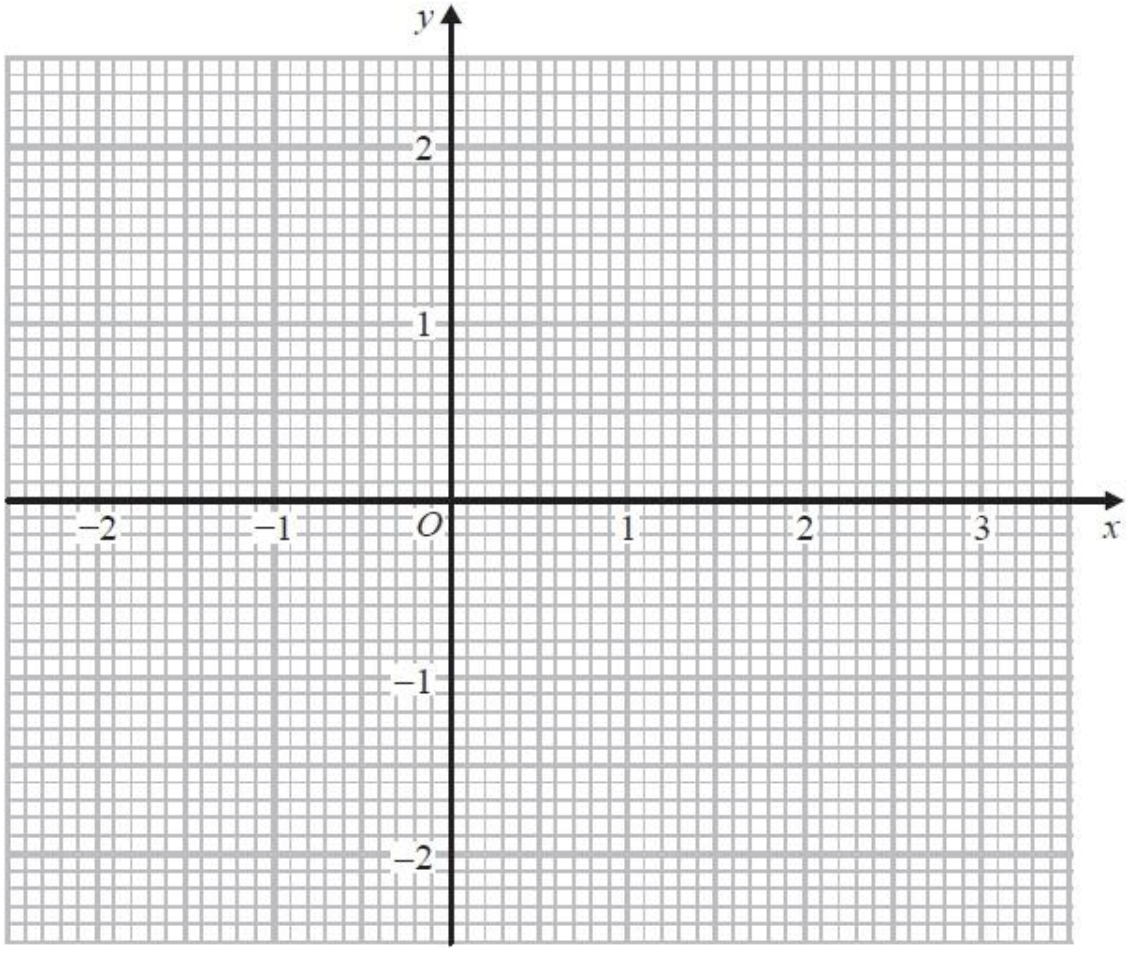
Q8.

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

x	−2	−1	0	1	2	3
y	−2				0	

(2)

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



(2)

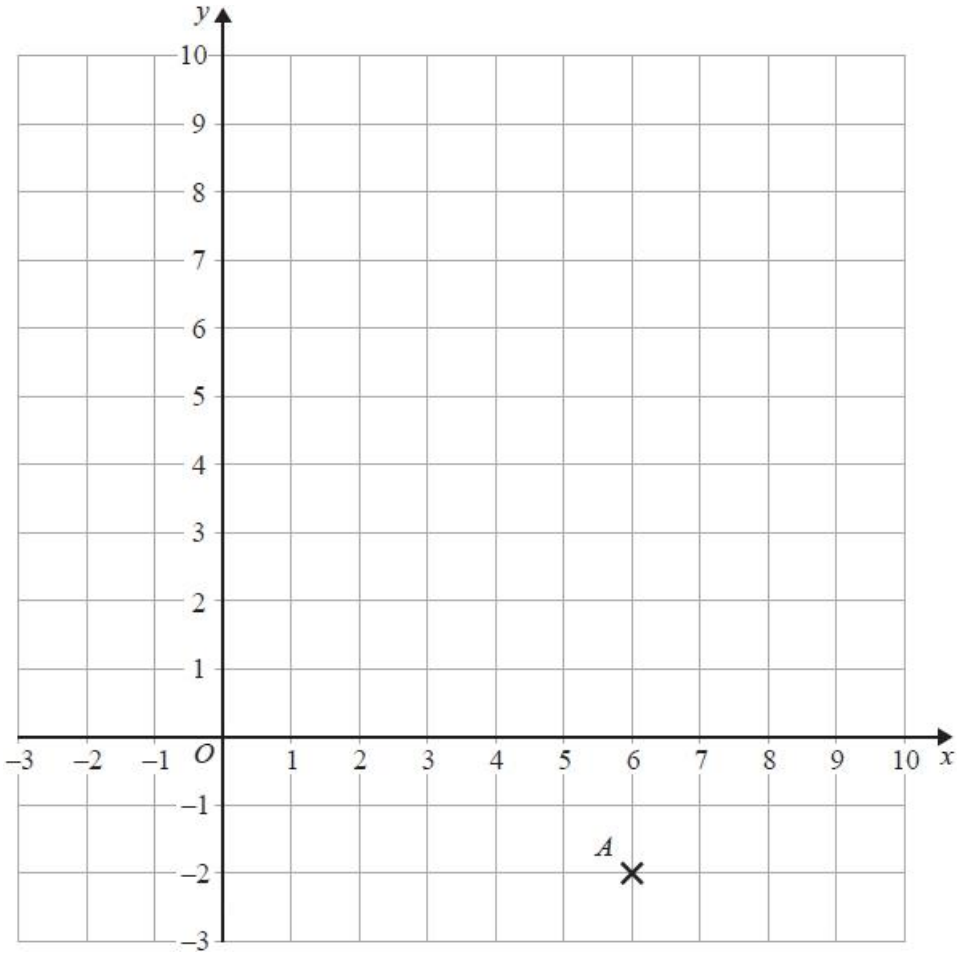
(c) Use your graph to find the value of x when $y = 0.3$

x = ...

(1)

(Total for question = 5 marks)

Q9.



(a) Write down the coordinates of the point *A*.

(..... , ...)

(1)

(b) (i) Plot the point with coordinates (2, 9).

Label this point B.

(1)

(ii) Does point *B* lie on the straight line with equation $y = 4x + 1$?

You must show how you get your answer.

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(1)

(c) On the grid, draw the line with equation $x = -2$

(1)

(Total for question = 4 marks)

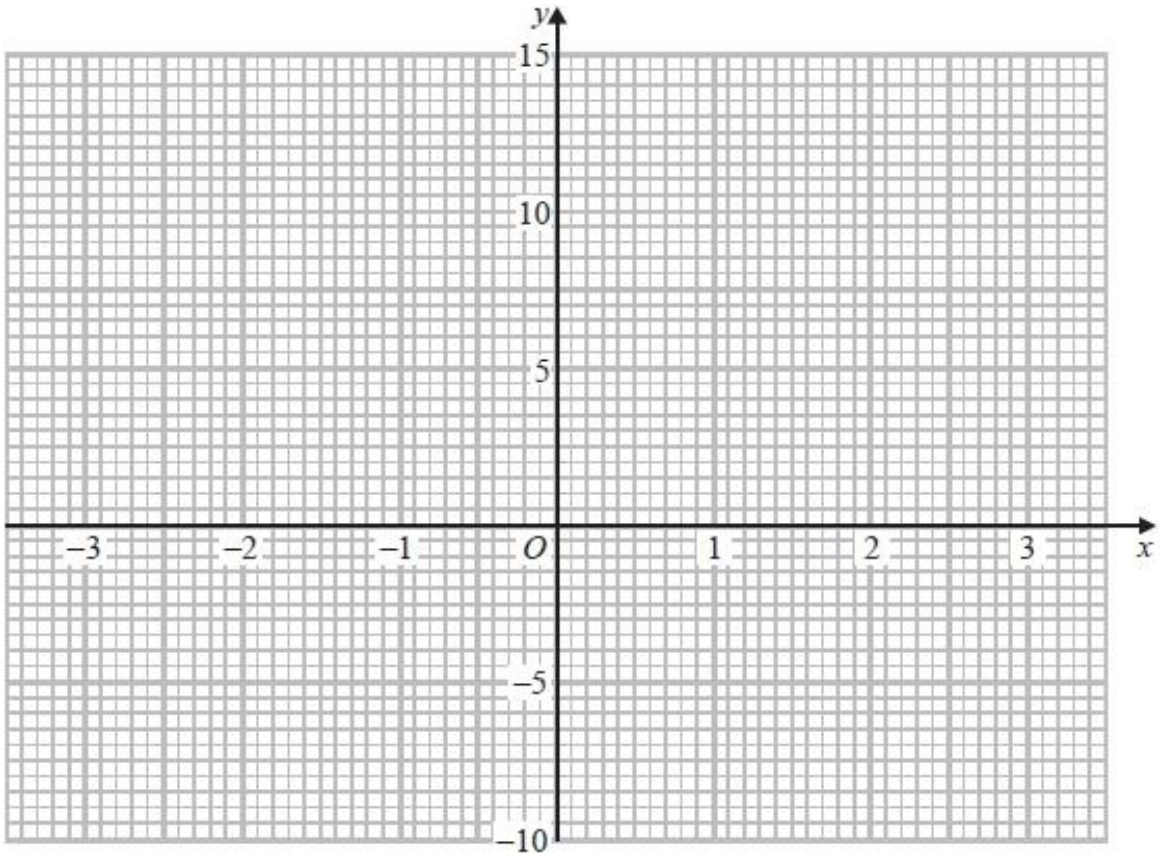
Q10.

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

x	–3	–2	–1	0	1	2	3
y		–2	–4		–2		

(2)

(b) On the grid, draw the graph of $y = x^2 + x - 4$ for values of x from –3 to 3



(2)

(c) Use the graph to estimate a solution to $x^2 + x - 4 = 0$

.....

(1)

(Total for question = 5 marks)