Non-Calculator

Q1.

$(3x + 1)(x - 2) + ax + b \equiv 3x^2 + 8x - 5$ Work out the values of a and b.

_____

_____

_____

_____

_____

_____

_____

_____

a

=...

b

Q2.

=...

Given that $3x = 9x+1$ work out the value of x.

....

_____

_____

_____

_____

_____

_____

$x =$ _____

(Total 2 marks)

AQA GCSE Maths - Linear and Quadratic Equations and Their Graphs (H)

Q3.

(a)　Expand and simplify　$(6x - 1)(2x + 3)$

_____

_____

　　　　　　　Answer _____

(2)

(b)　Solve　$4x^2 + x - 3 = 0$

_____

_____

_____

_____

_____

　　　　　　　Answer _____

(3)

(Total 5 marks)

Calculator

Q4.

(a)　Factorise　$a^2 - 3a$

_____

　　　　　　　Answer _____

(1)

(b)　Solve　$7y + 4 = 3(y + 6)$

_____

_____

_____

　　　　　　　$y =$ _____

(3)

(Total 4 marks)

AQA GCSE Maths - Linear and Quadratic Equations and Their Graphs (H)

Q5.

(a) Expand and simplify $5(x - 3) - 3(x - 1)$

_____

_____

_____

Answer _____

(3)

(b) Solve the equation $\dfrac{x + 2}{2} + \dfrac{2x + 1}{8} = 0$

_____

_____

_____

_____

_____

$x =$ _____

(4)

(Total 7 marks)

AQA GCSE Maths - Linear and Quadratic Equations and Their Graphs (H)

Q6.

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

x	−2	−1	0	1	2	3
y	4		−6	−5		9

(2)

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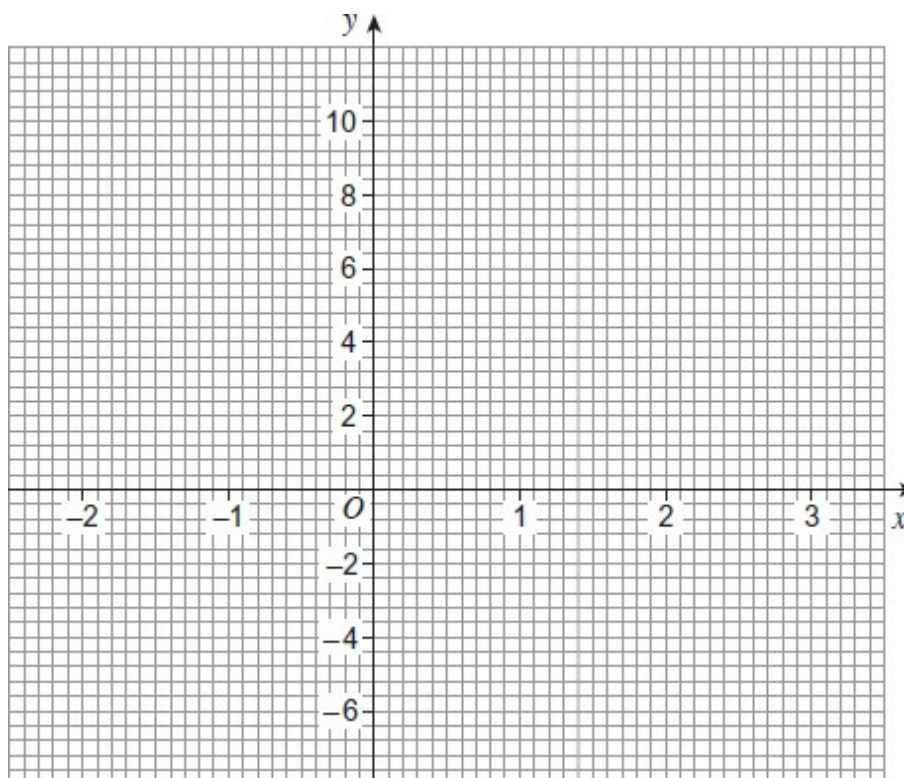
(2)

(c)   Use your graph to find the solutions of the equation $2x^2 - x - 6 = 0$
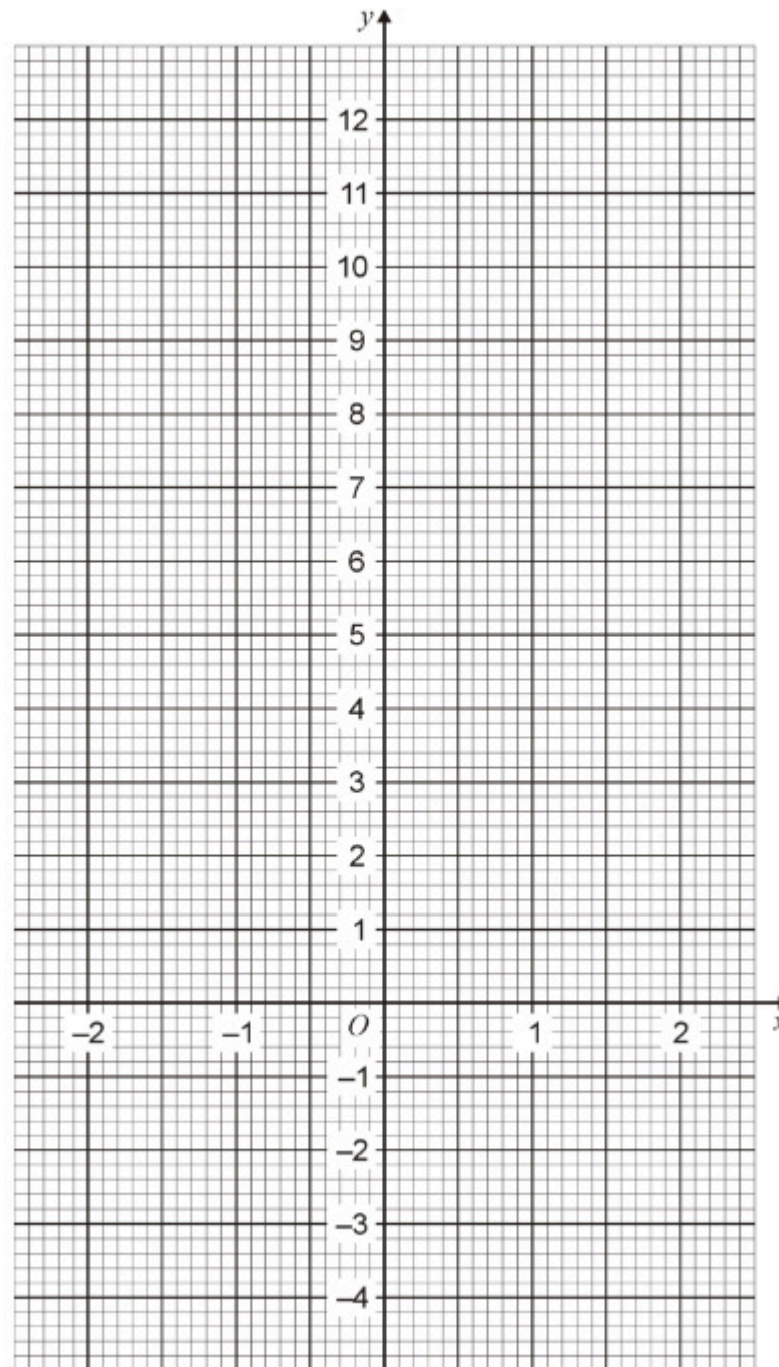
Answer _____and_____

(2)

(Total 6 marks)

AQA GCSE Maths - Linear and Quadratic Equations and Their Graphs (H)

Q7.

Complete the table of values for $y = x^3 + 4$

x	−2	−1	0	1	2
y		3	4		12

(2)

(b)   On the grid below, plot the graph of $y = x^3 + 4$ for values of x from −2 to 2

(2)

AQA GCSE Maths - Linear and Quadratic Equations and Their Graphs (H)

(c) The graph of $y = 5 + 3x - 2x^2$ is shown for values of x from −2 to 3
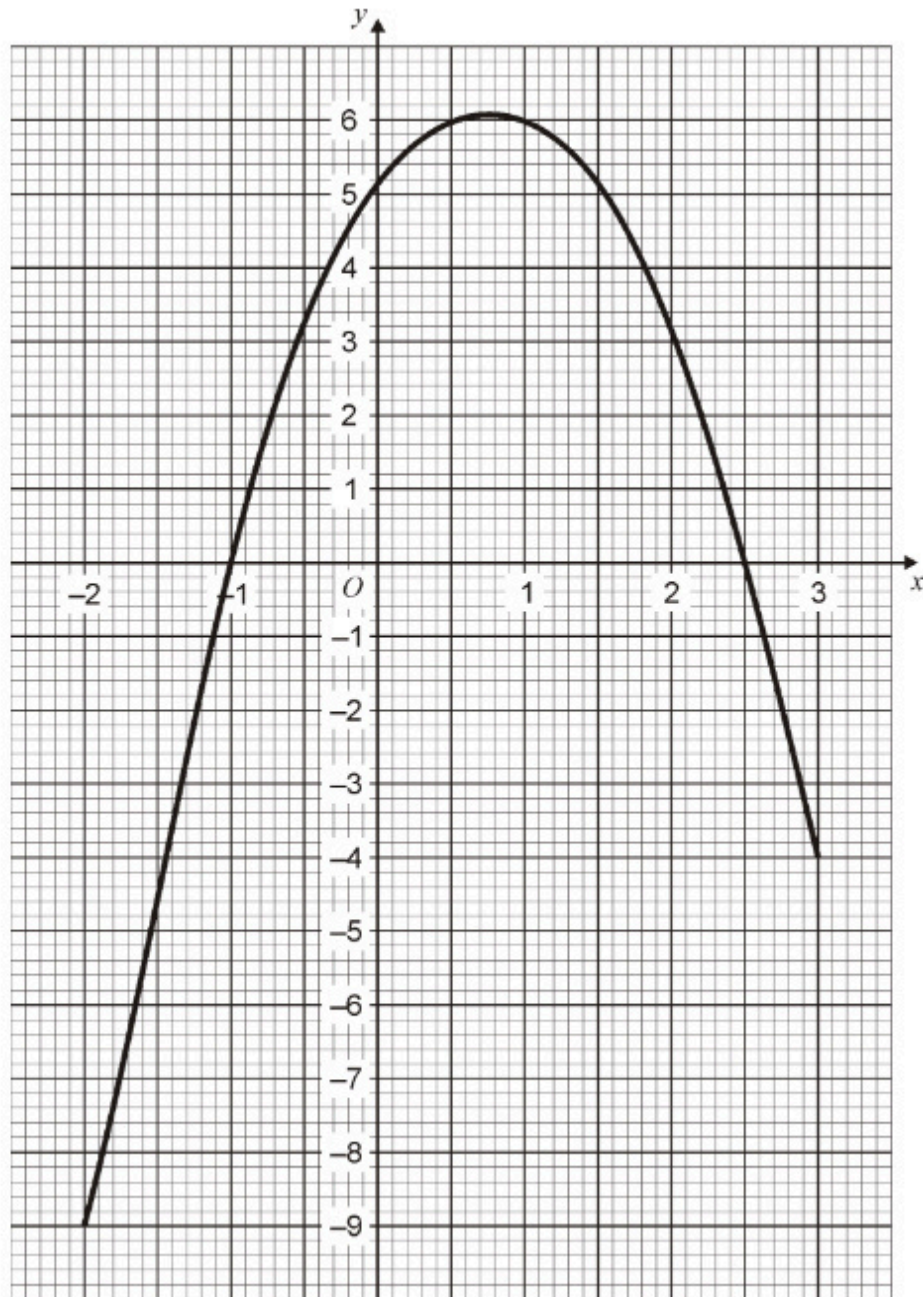
Write down the solutions of $5 + 3x - 2x^2 = 0$

Answer _____ and _____

(2)

(Total 6 marks)

AQA GCSE Maths - Linear and Quadratic Equations and Their Graphs (H)