Delta 3 – Unit 6 Revision Questions

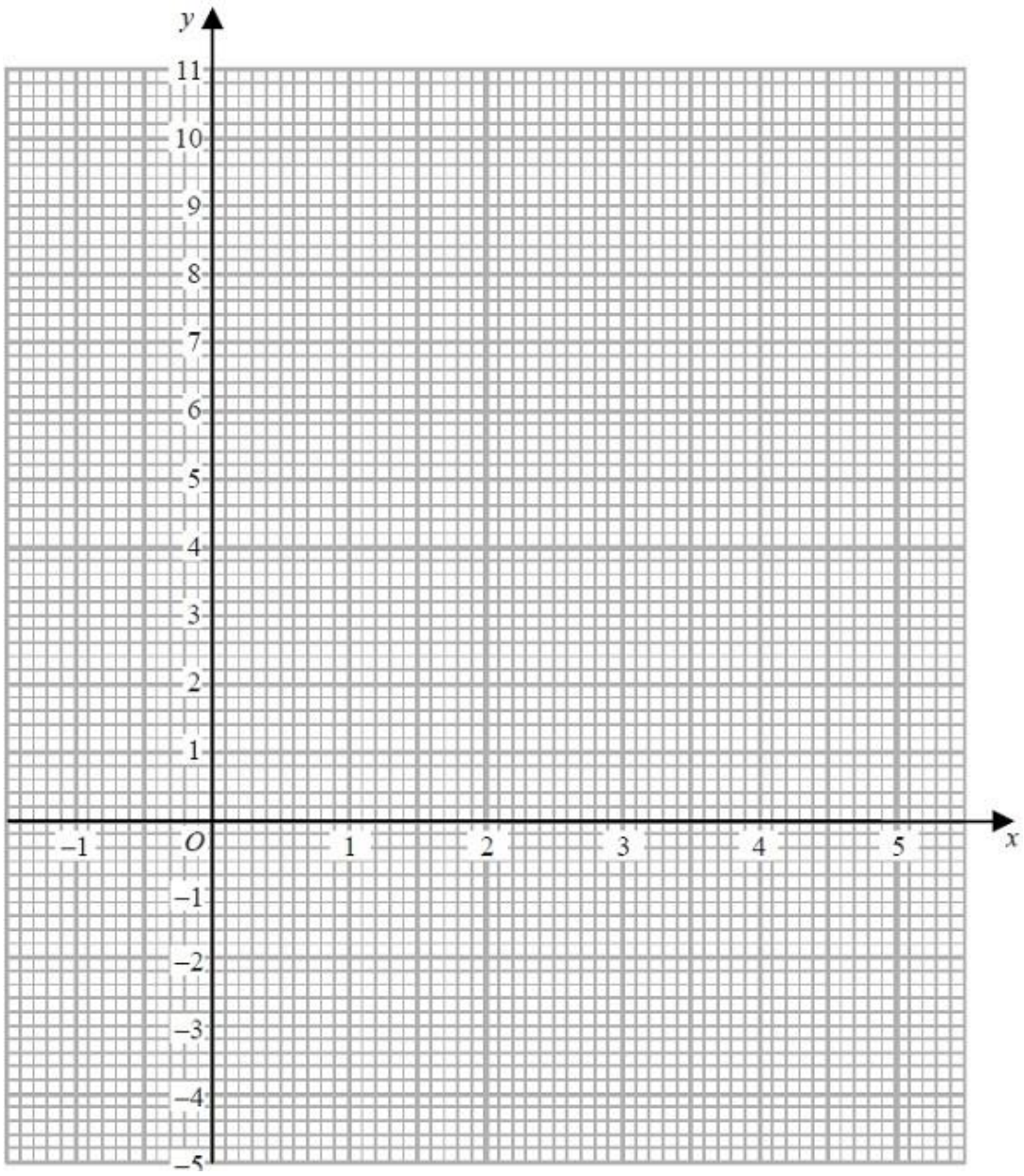
Q1.

(a) Complete the table of values for $y = x^2 - 5x + 3$

x	−1	0	1	2	3	4	5
y		3	−1		−3		3

(2)

(b) On the grid below, draw the graph of $y = x^2 - 5x + 3$ for values of x from $x = -1$ to $x = 5$



(2)

(c) Find estimates of the solutions of the equation $x^2 - 5x + 3 = 0$

x = ...or x = ...

(2)

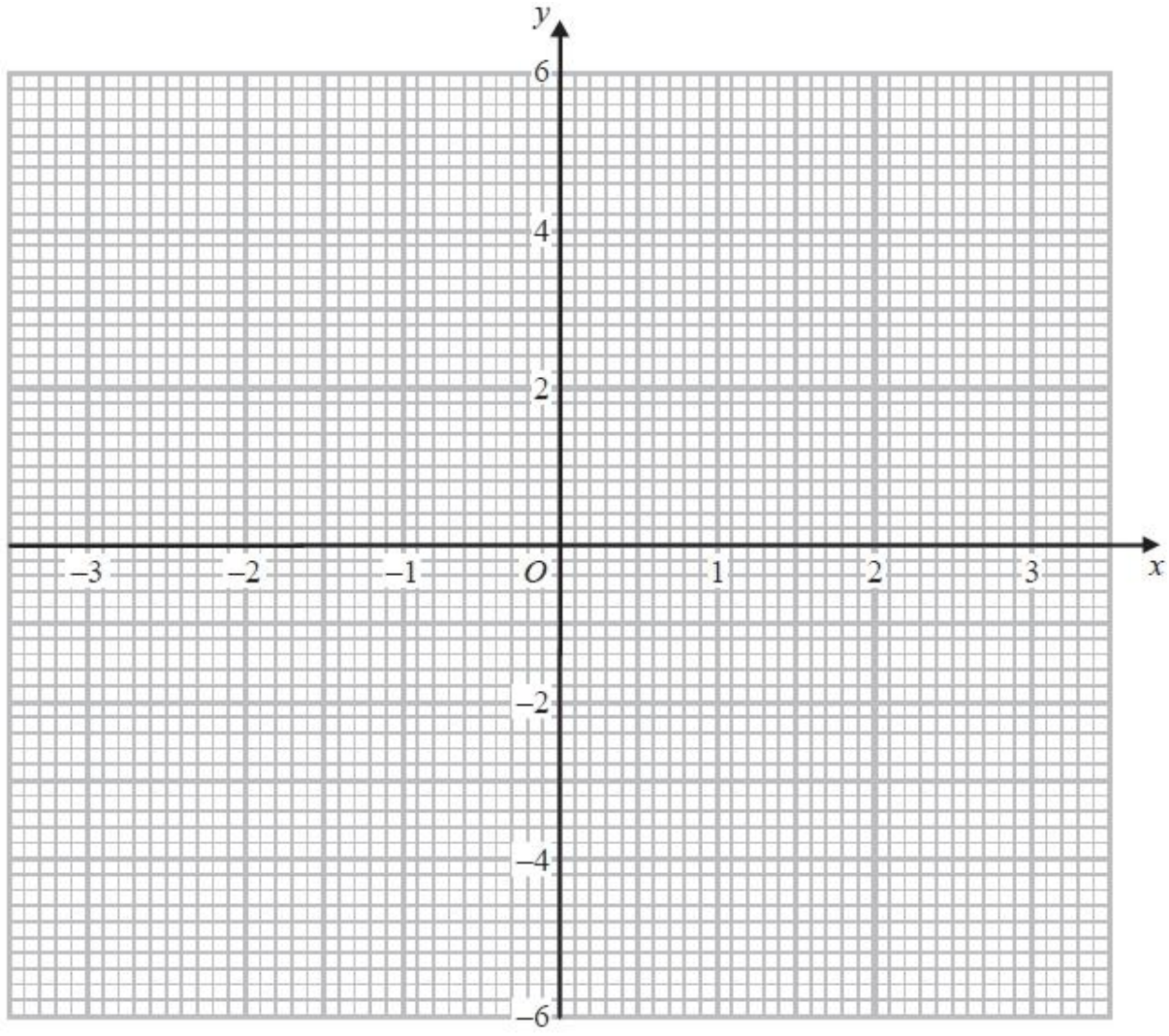
Q2.

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

x	−3	−2	−1	0	1	2	3
y	−5		3			0	

(2)

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



(2)

(Total for question = 4 marks)

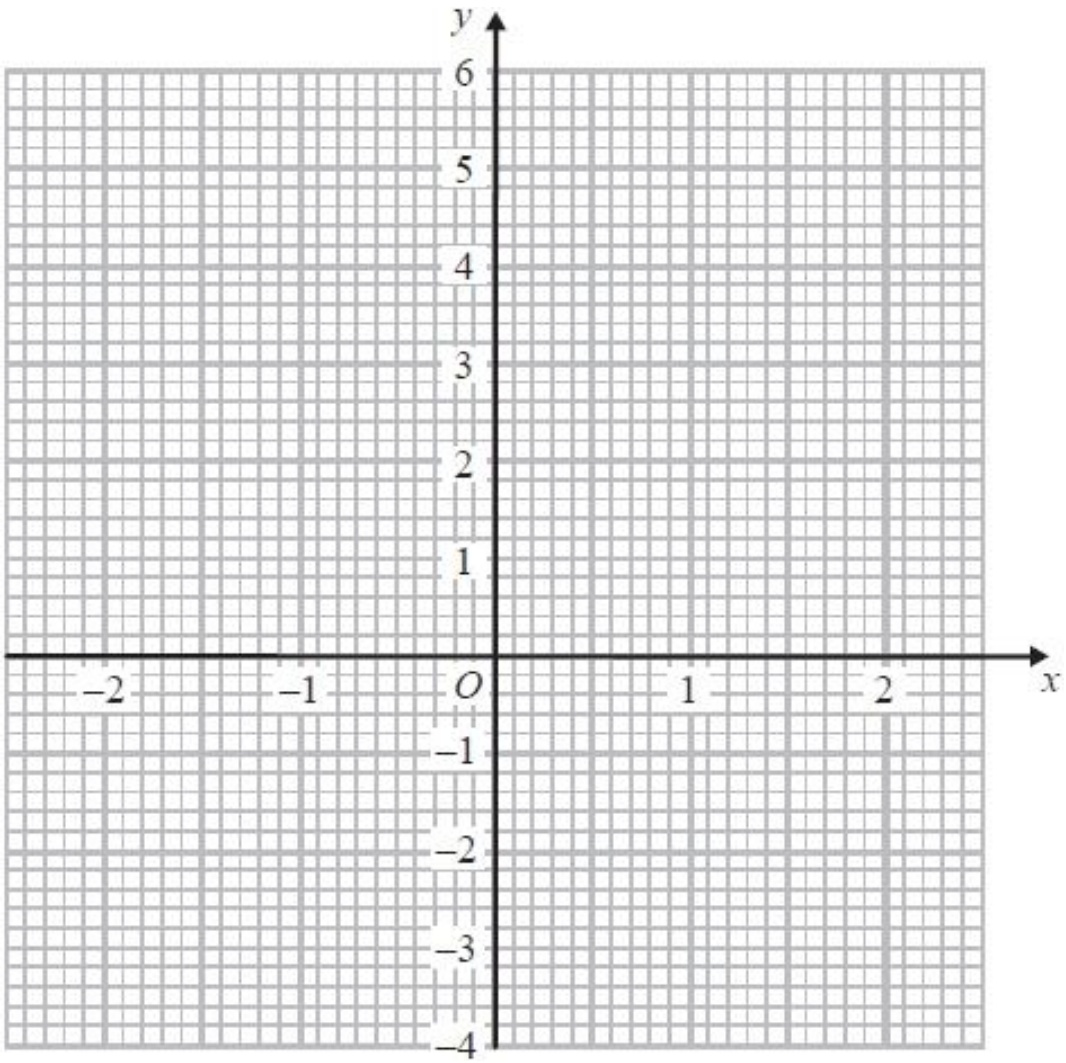
Q3.

(a) Complete the table of values for $y = x^3 - 3x + 1$

x	–2	–1	0	1	2
y		3			3

(2)

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



(2)

(Total for question = 4 marks)

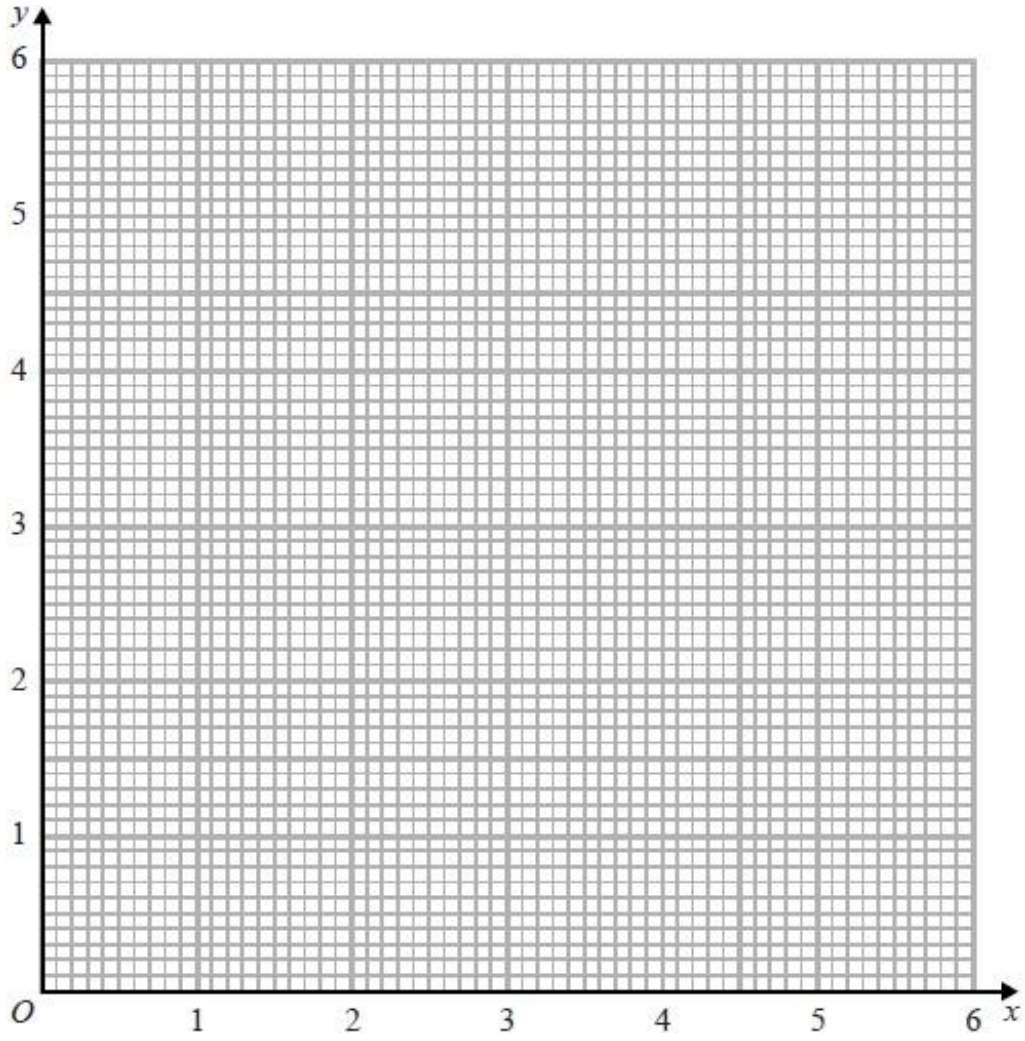
Q4.

(a) Complete the table of values for $y = \frac{3}{x}$

x	0.5	1	2	3	4	5	6
y		3	1.5		0.75		

(2)

(b) On the grid, draw the graph of $y = \frac{3}{x}$ for values of x from 0.5 to 6

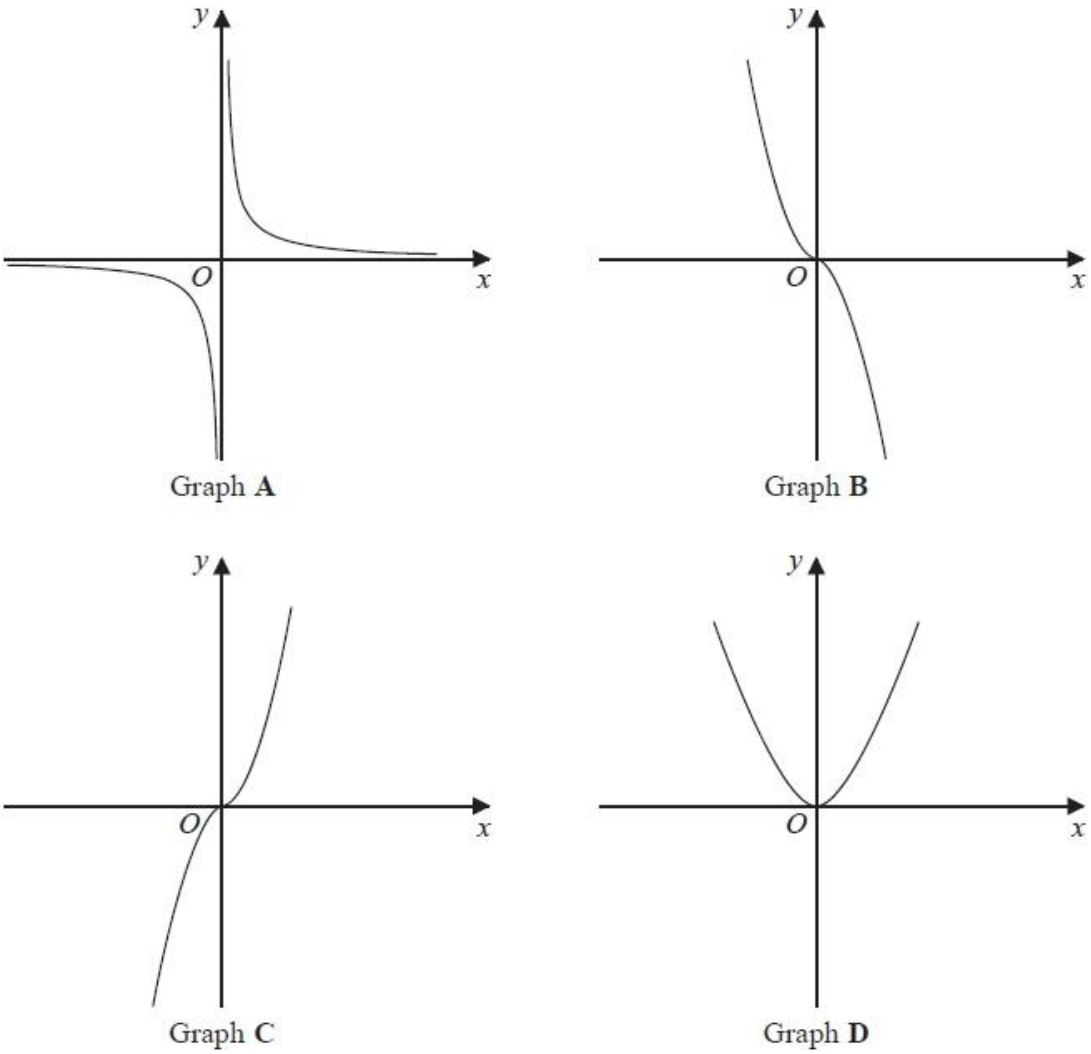


(2)

(Total for question = 4 marks)

Q5.

The diagram shows four graphs.



Each of the equations in the table is the equation of one of the graphs.

Complete the table.

Equation	Letter of graph
$y = -x^3$	
$y = x^3$	
$y = x^2$	
$y = \frac{1}{x}$	

(Total for question = 2 marks)

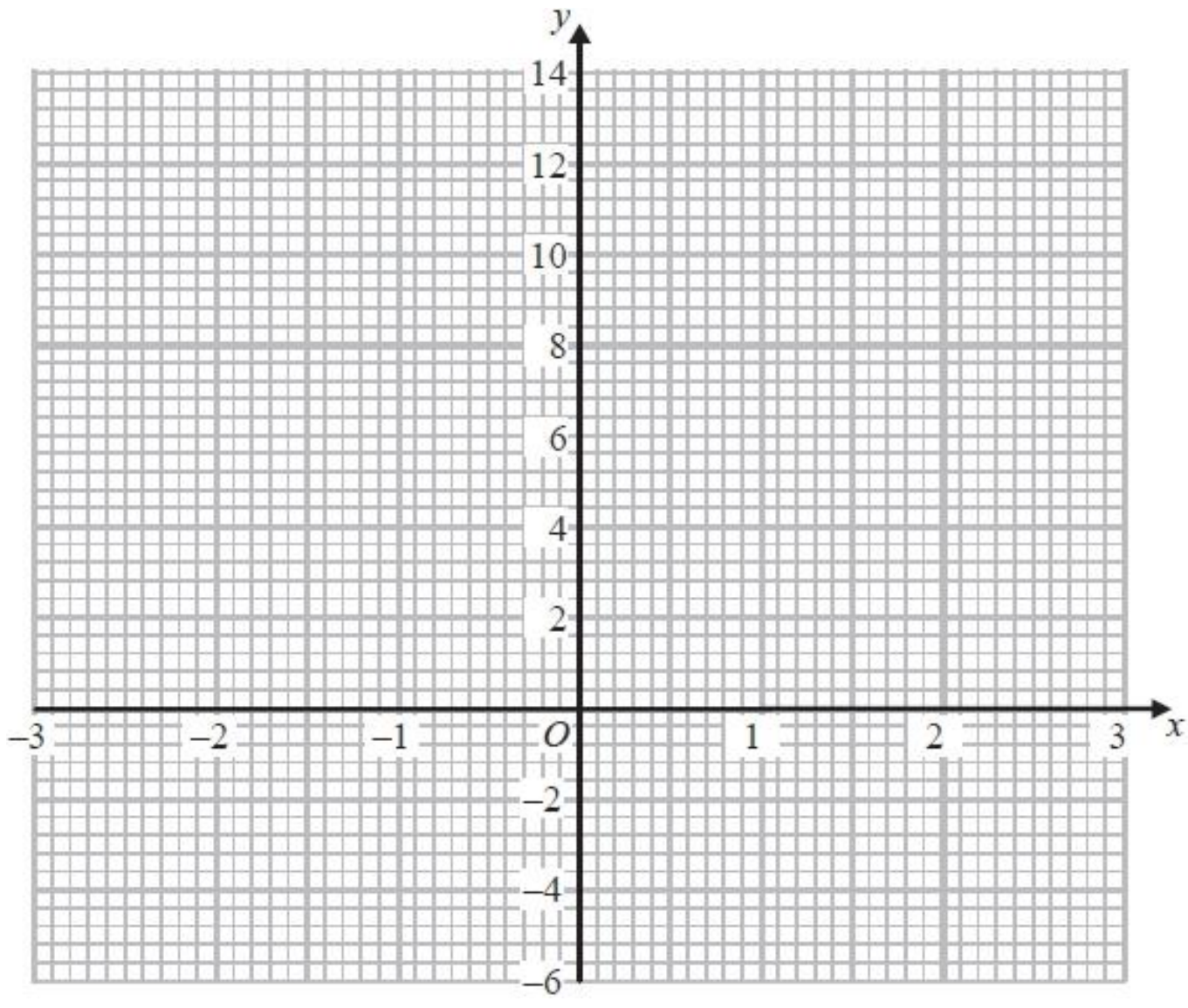
Q6.

(a) Complete the table of values for $y = x^3 - 6x + 4$

x	−3	−2	−1	0	1	2	3
y	−5		9			0	13

(2)

(b) On the grid, draw the graph of $y = x^3 - 6x + 4$ for values of x from −3 to 3



(2)

(Total for question = 4 marks)

Q7.

Solve $x^2 + 5x - 24 = 0$

.....

(Total for question = 3 marks)

Q8.

(a) Solve $2x^2 = 72$

.....

(2)

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

.....

(2)

(c) Factorise $x^2 + 6x + 9$

.....

(1)

(Total for question = 5 marks)

Q9.

Factorise $x^2 + 3x - 4$

.....

(Total for question is 2 marks)

Q10.

Solve $2x^2 + 5x - 3 = 0$

.....

(Total for Question is 3 marks)