

- 1 The graph of the curve C with equation $y = f(x)$ is transformed to give the graph of the curve S with equation $y = f(-x) - 3$

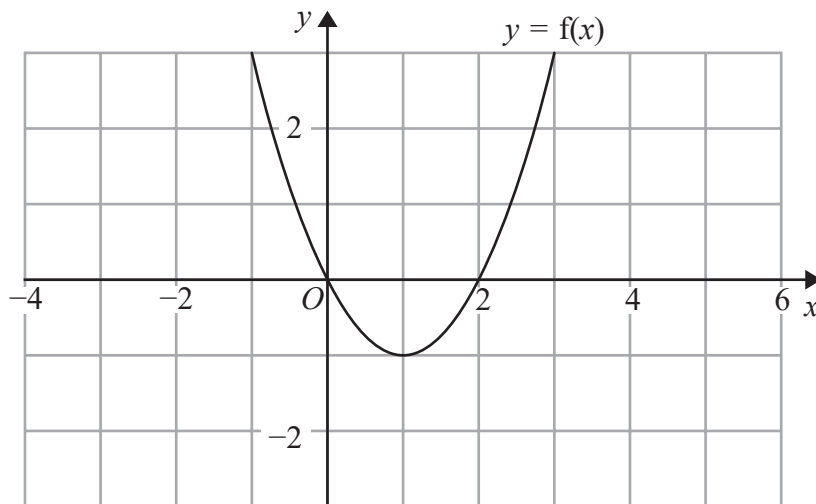
The point on C with coordinates (7, 2) is mapped to the point Q on S.

Find the coordinates of Q.

(.....,))

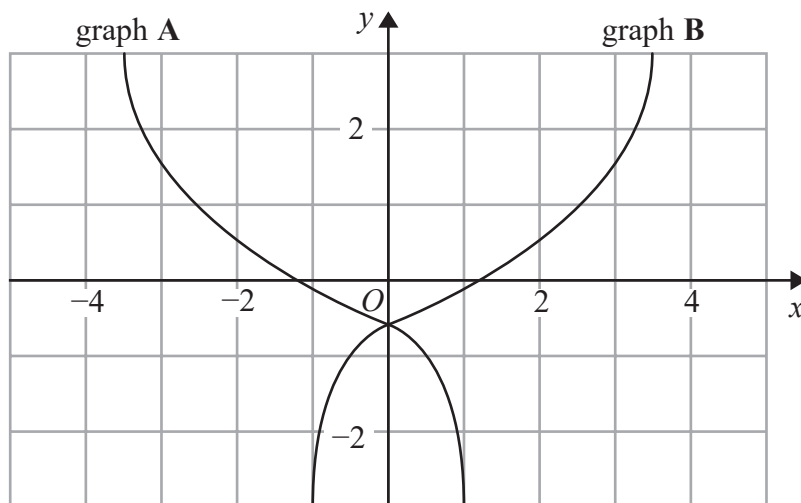
(Total for Question 1 is 2 marks)

2 The graph of $y = f(x)$ is shown on the grid below.



(a) On the grid above, sketch the graph of $y = f(x - 2)$

(1)



On the grid, graph A has been reflected to give graph B.

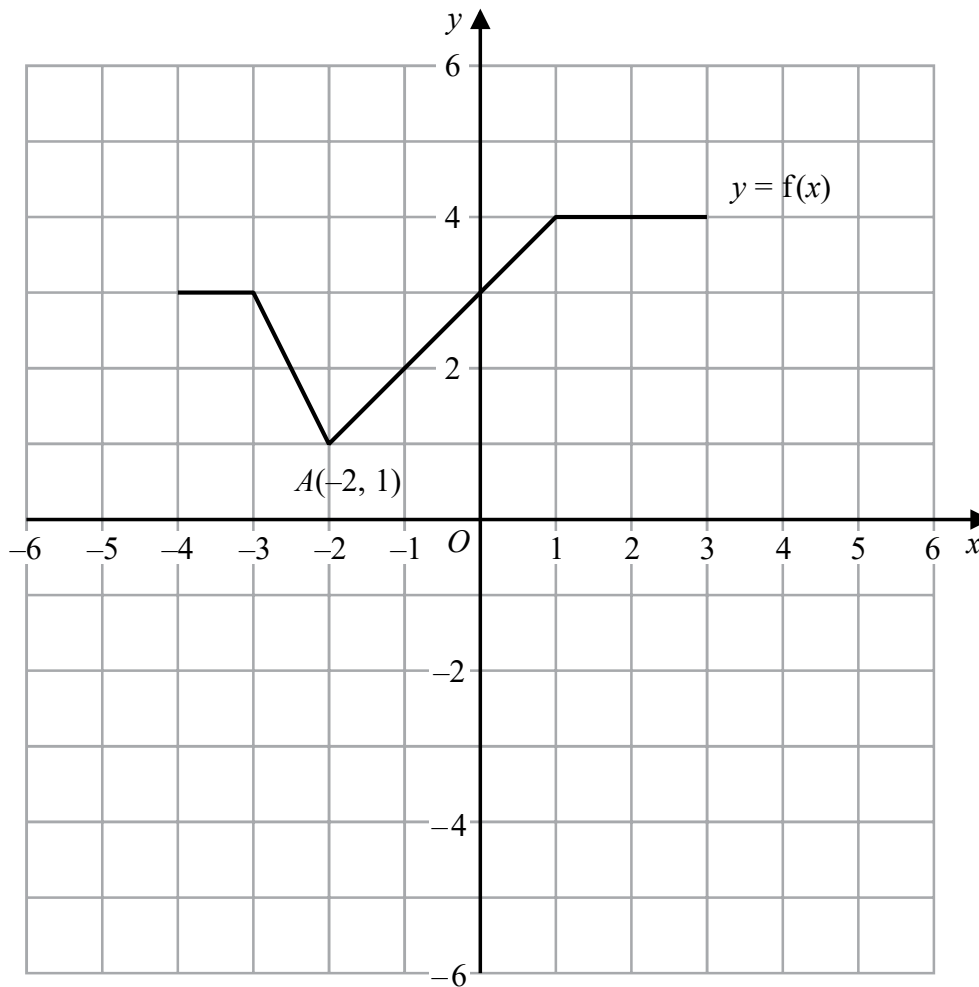
The equation of graph A is $y = g(x)$

(b) Write down the equation of graph B.

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(1)

(Total for Question 2 is 2 marks)

3 The graph of $y = f(x)$ is shown on the grid.



(a) On the grid, draw the graph with equation $y = f(x + 1) - 3$

(2)

Point $A(-2, 1)$ lies on the graph of $y = f(x)$.

When the graph of $y = f(x)$ is transformed to the graph with equation $y = f(-x)$, point A is mapped to point B .

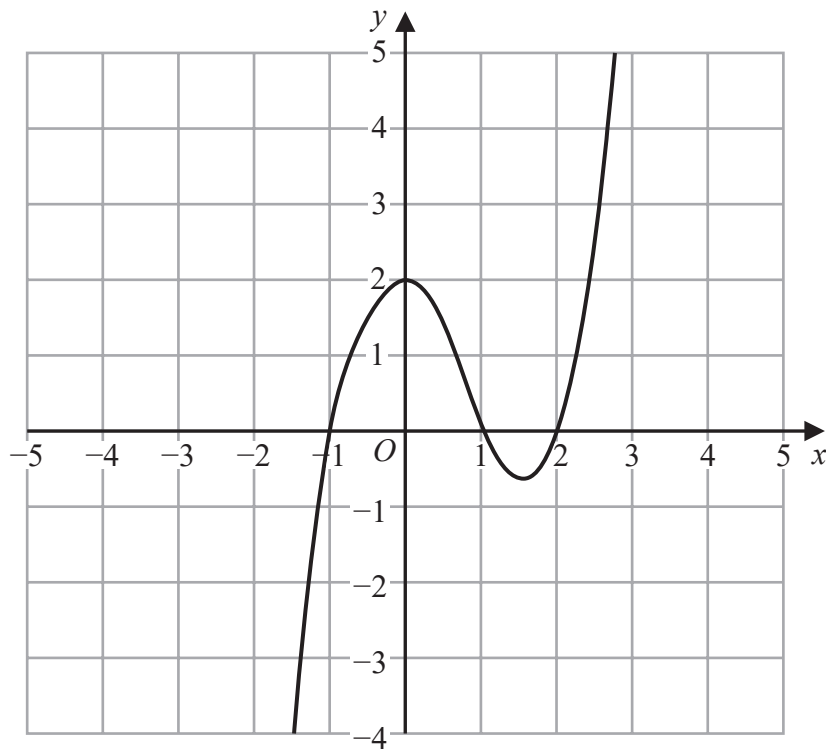
(b) Write down the coordinates of point B .

(.....,))

(1)

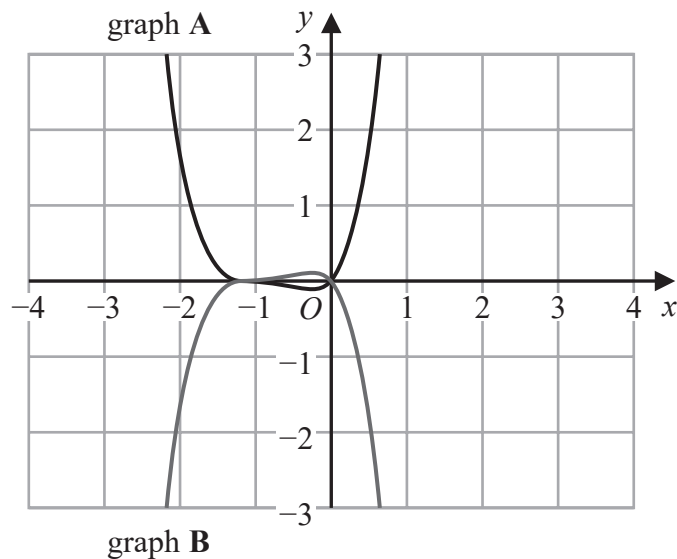
(Total for Question 3 is 3 marks)

4 The graph of $y = f(x)$ is shown on the grid below.



(a) On the grid above, sketch the graph of $y = f(x + 2)$

(1)



On this grid, graph A has been reflected to give graph B.
The equation of graph A is $y = g(x)$

(b) Write down an equation of graph B.

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(1)

(Total for Question 4 is 2 marks)