Reflecting and Translating Function

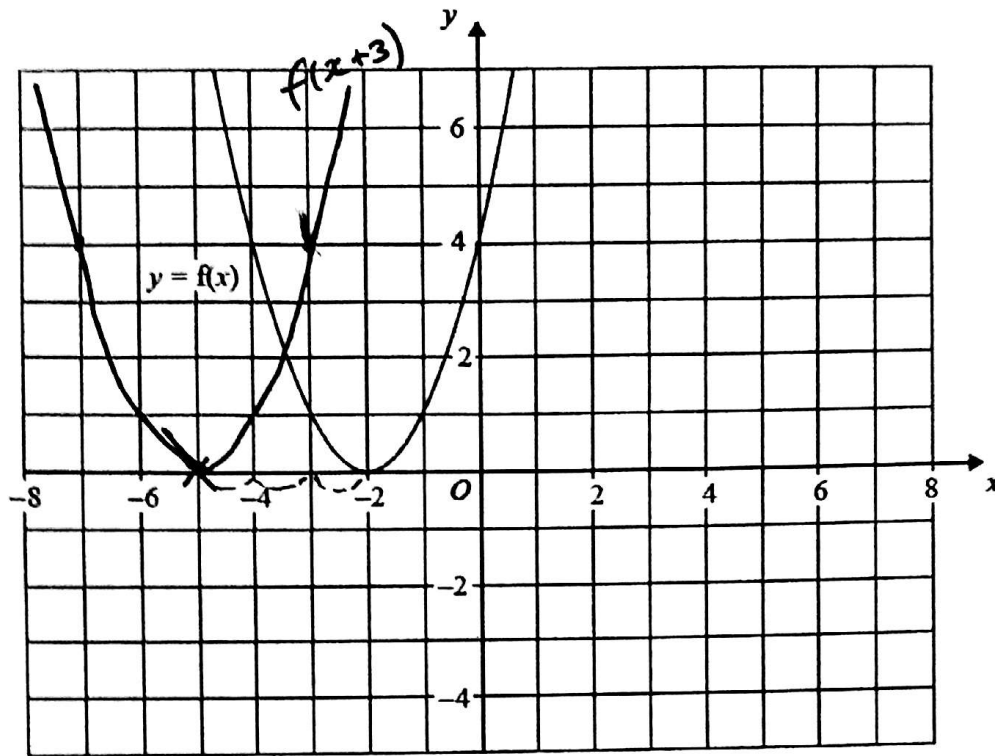*Created by:*

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1) Reflecting and Translating Functions: Easier

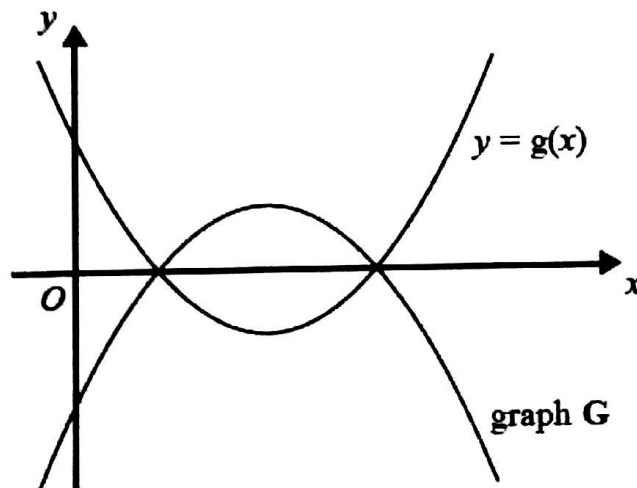**Q1.** The graph of $y = f(x)$ is shown on the grid.

$f(x+3)$

$y = f(x)$

(a) On the grid above, sketch the graph of $y = f(x + 3)$

(2)

The graph of $y = g(x)$ is shown below.

$y = g(x)$

graph **G**

The graph **G** is the reflection of $y = g(x)$ in the x-axis.

(b) Write down an equation of graph **G**.

$y = -g(x)$

(1)
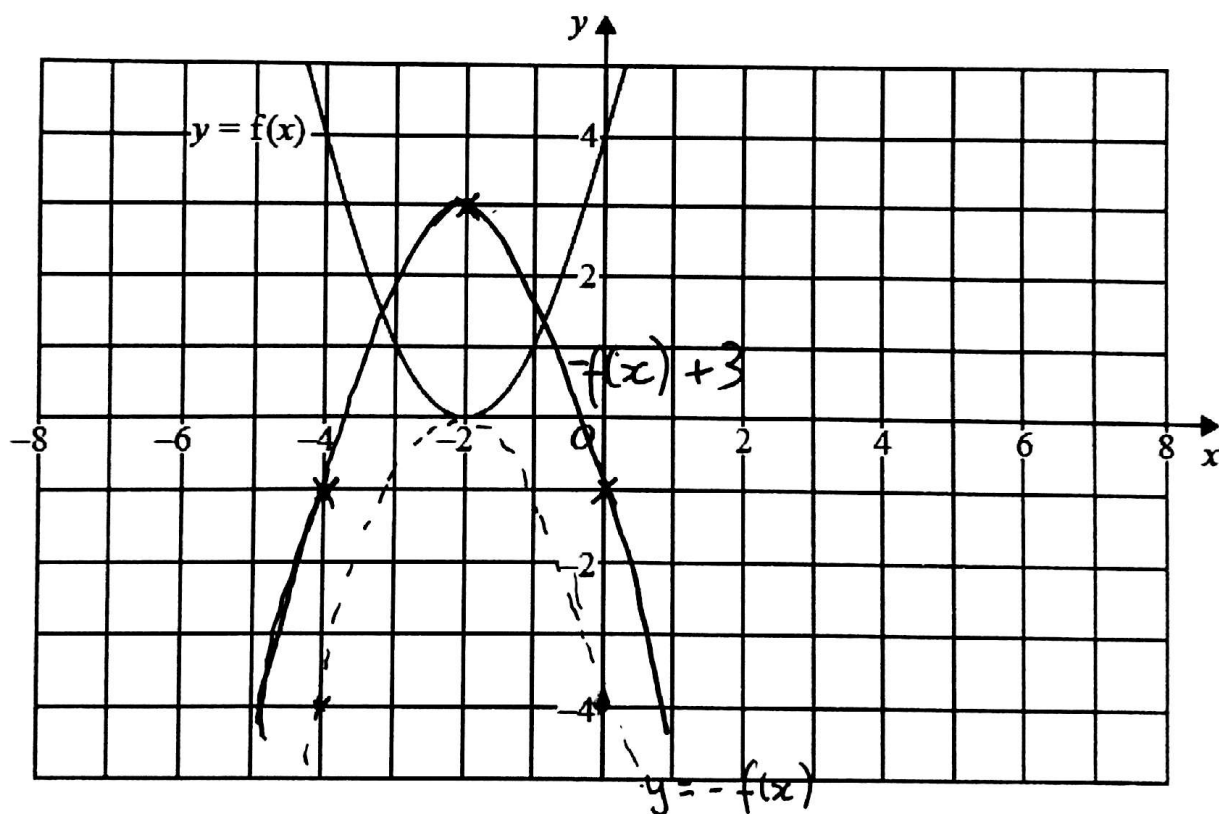
(Total for question = 3 marks)

1) Reflecting and Translating Functions: Medium

Q2. The graph of $y = f(x)$ is shown on both grids below.

$y = f(x)$

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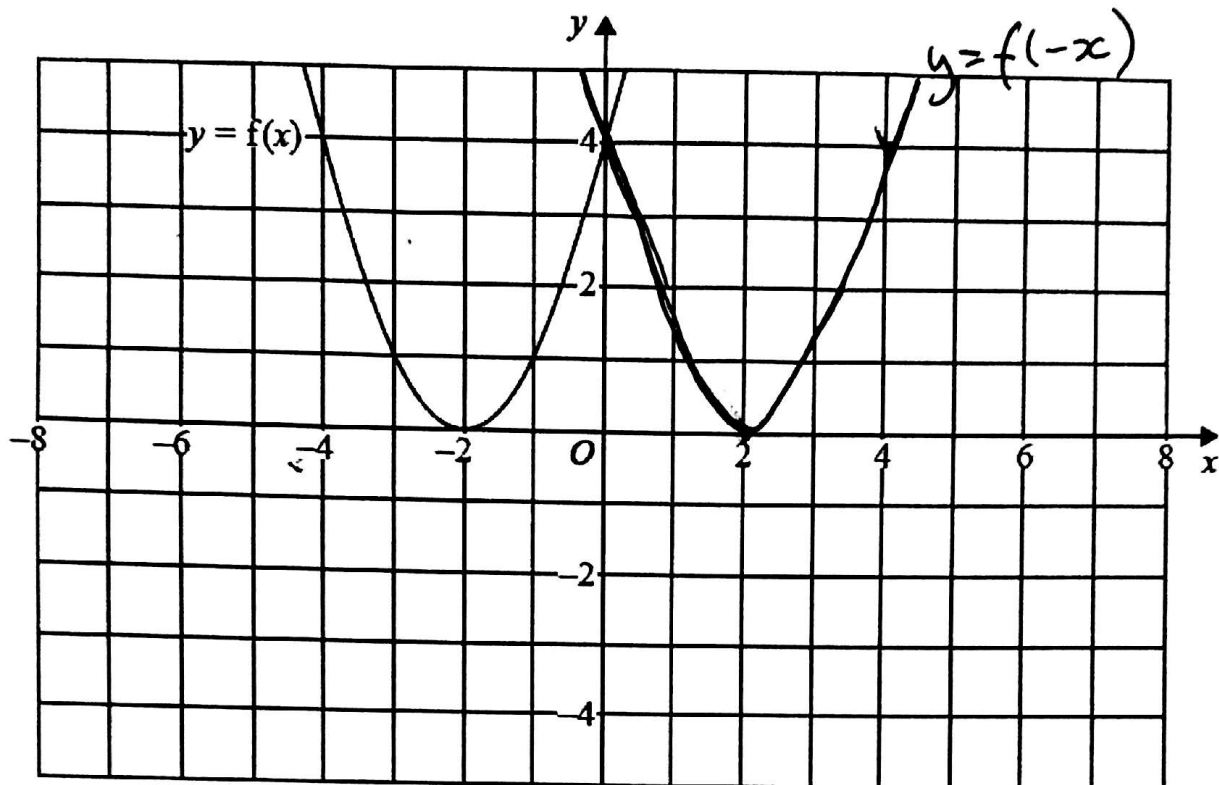
(a) On the grid above, sketch the graph of $y = f(-x)$

(1)

$y = f(x)$

$-f(x) + 3$

$y = -f(x)$

(b) On this grid, sketch the graph of $y = -f(x) + 3$

(1)

Q3.

The graph of $y = f(x)$ is transformed to give the graph of $y = -f(x + 3)$
The point A on the graph of $y = f(x)$ is mapped to the point P on the graph of $y = -f(x + 3)$

The coordinates of point A are (9, 1)
Find the coordinates of point P.

$$f(x) \quad -f(x) \quad -f(x+3)$$
$$(9,1) \quad (9,-1) \quad (6,-1)$$

(........6........ , ...−1........)

(Total for question is 2 marks)