1 (7, 28) is a point on the graph $y = f(x)$

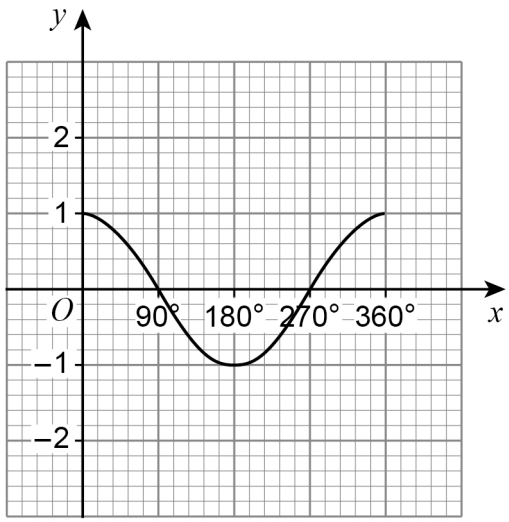
Circle the point which **must** be on the graph $y = f(x) + 2$

[1 mark]

(7, 26) (7, 30) (5, 28) (9, 28)

1

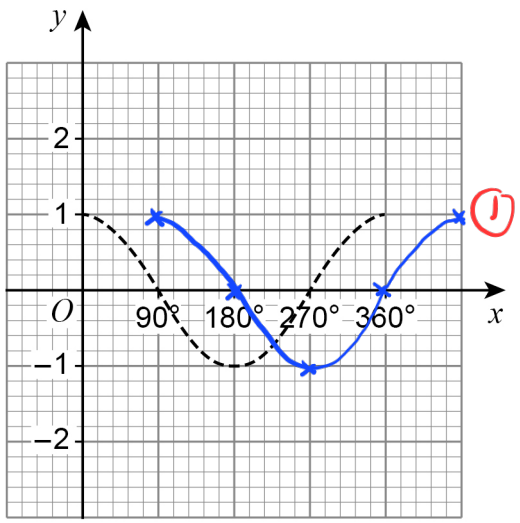
2 Here is the graph of $y = \cos x$ for $0° \leqslant x \leqslant 360°$



In parts (a) and (b) the graph of $y = \cos x$ is shown as a dashed line.

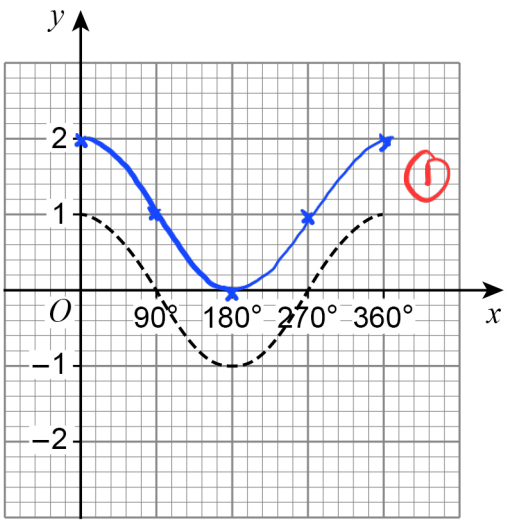
2 (a) On the grid below, draw the graph of $y = \cos (x - 90°)$ for $0° \leqslant x \leqslant 360°$

[1 mark]



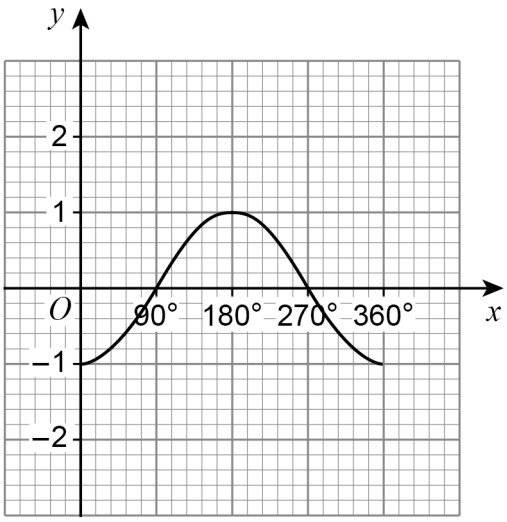
2 (b) On the grid below, draw the graph of $y = 1 + \cos x$ for $0° \leqslant x \leqslant 360°$

[1 mark]



2 (c) Rita tries to draw the graph of $y = \cos(-x)$ for $0° \leqslant x \leqslant 360°$

Here is her graph.

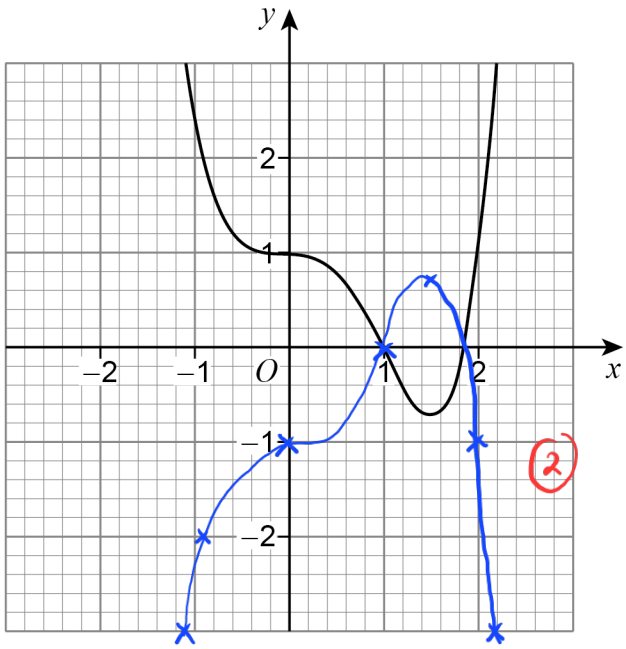


Give a reason why Rita's graph is incorrect.

[1 mark]

This is the graph of $y = -\cos x$ (1)

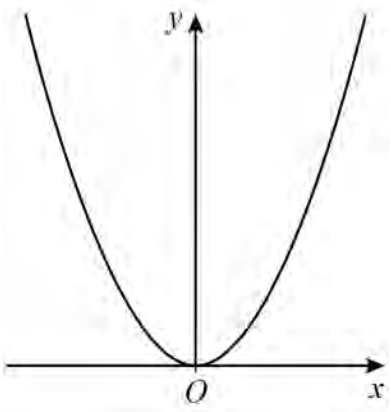
3 The grid shows the graph of $y = f(x)$



On the grid, draw the graph of $y = -f(x)$

[2 marks]

4 Here is a sketch of $y = x^2$



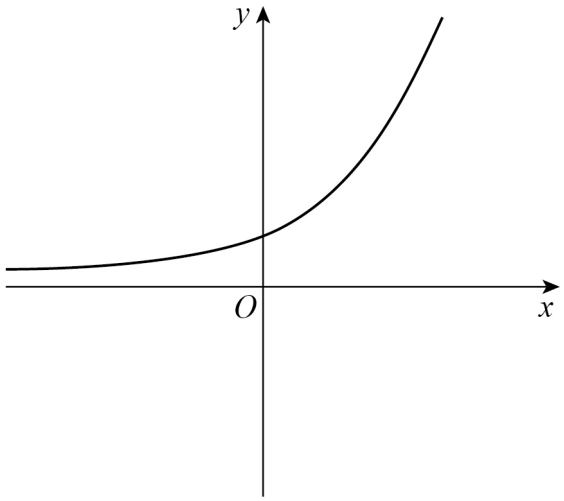
4 (a) The graph $y = x^2$ is reflected in the x axis.

Write down the equation of the graph after this transformation.

[1 mark]

Answer $y = -x^2$ (1)

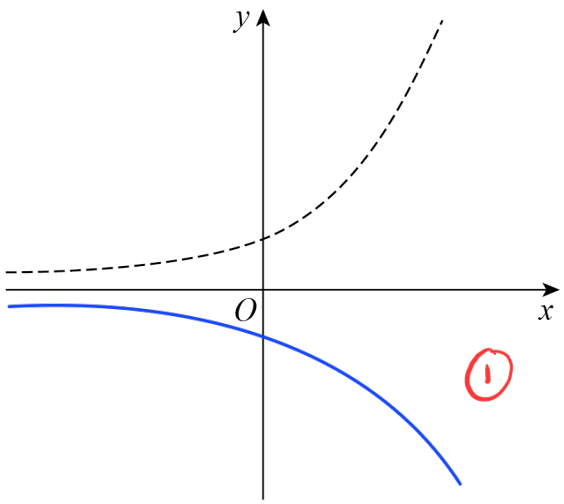
5 Here is a sketch of the graph of $y = 5^x$



In parts (a) and (b) the sketch of $y = 5^x$ is shown as a dashed line.

5 (a) On the axes below, sketch the graph of $y = -5^x$

[1 mark]



5 (b) On the axes below, sketch the graph of $y = 5^x - 1$

[1 mark]