

**AQA, OCR, Edexcel**

**GCSE**

# GCSE Maths

Graph Transformations, Y Shifts  
and Stretches Answers

Name:

**M M E**

Mathsmadeeasy.co.uk

Total Marks: /12

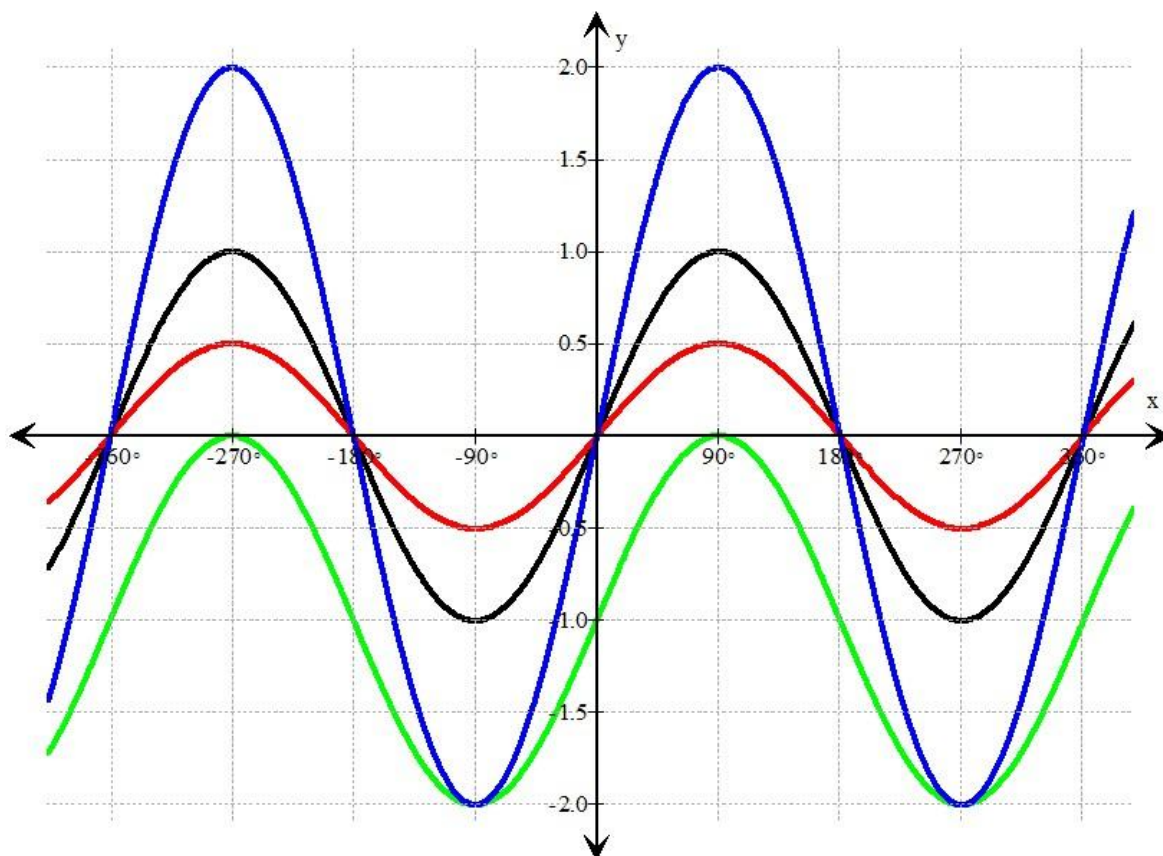
## Graph Transformations y-Stretch, y-shift

1. The graph of  $y = \sin(x)$  is plotted below. Sketch the following transformations of  $\sin(x)$  on the same set of axes.

a.  $y = \frac{1}{2}\sin(x)$

b.  $y = \sin(x) - 1$

c.  $y = 2\sin(x)$



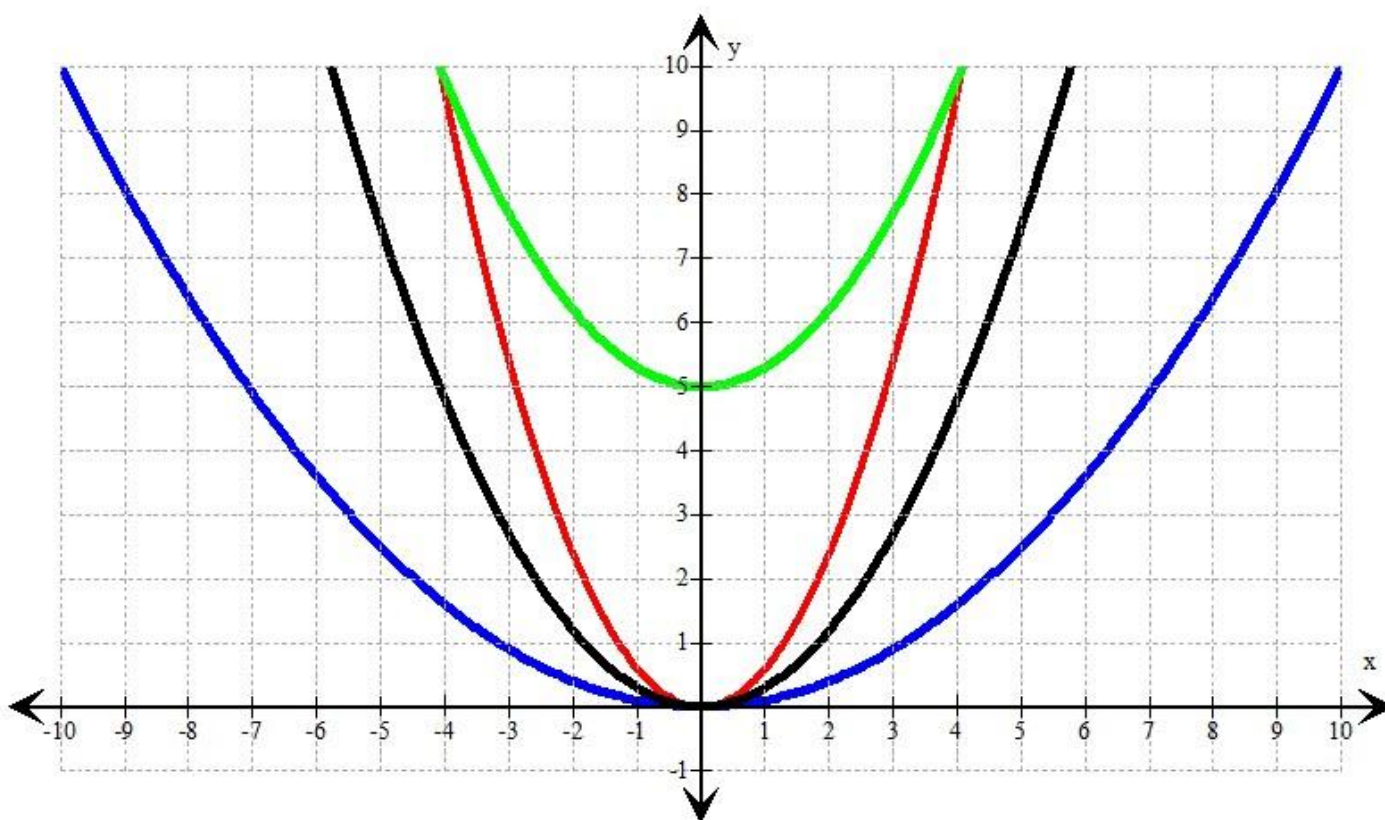
(6 marks)

2. The graph of  $y = f(x)$  is plotted below. Sketch the following transformations of  $f(x)$  on the same set of axes.

a.  $y = 2f(x)$

b.  $y = f(x) + 5$

c.  $y = \frac{1}{3}f(x)$



(6 Marks)