GCSE HIGHER · REVISION MAT 2

Transforming graphs

1 (4, 7) lies on $y = f(x)$.

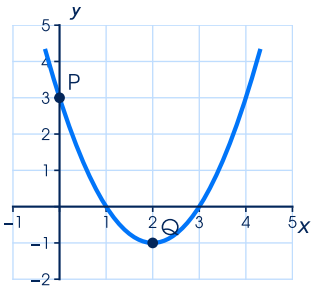
Write down the point it maps to on $y = f(x) - 2$.

2 (4, 7) lies on $y = f(x)$.

Write down the point it maps to on $y = f(x + 3)$.

3 Describe the transformation that maps $y = x^2$ onto $y = -x^2$.

4 The graph of $y = f(x)$ is shown.



Write down the images of P and Q on $y = f(x - 2)$.

5 $y = \cos x$ is reflected in the x-axis.

Show that the image passes through (180°, 1).

6 $y = x^2 - 6x + 11$ is a translation of $y = x^2$.

Find the vector.

7 Explain why reflecting $y = x^2$ in the y-axis gives the same graph.

8 $y = 2^x$ is translated by the vector $(0, b)$.

The new graph passes through (3, 5).

Find b and the equation of the asymptote.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 2

Transforming graphs

1 (4, 5)

2 (1, 7)

3 Reflection in the x-axis

4 P(2, 3), Q(4, −1)

5 $\cos 180° = -1$

$-(-1) = 1$ ✓

6 $(x - 3)^2 + 2$

Vector (3, 2)

7 $(-x)^2 = x^2$

The graph is symmetric about the y-axis.

8 $2^3 + b = 5$

$b = -3$; asymptote $y = -3$