# STEP/Transformations: Exercises - Overview (28/6/23)

## Q1

(i) What series of transformations is equivalent to a reflection in the line $x = L$?

(ii) What is the effect of a reflection in the line $x = L$ on the function $y = f(x)$?

## Q2

What combination of transformations converts $y = 2^x$ to $y = 2^{4x-2}$?

## Q3

(i) Find a series of transformations that can be applied to $y = \frac{1}{x}$ to produce $y = \frac{3x-2}{6x-1}$.

(ii) Sketch the curve $y = \frac{3x-2}{6x-1}$.

## Q4

What combination of transformations converts $y = 3^{-x}$ to $y = 3^{2x-1}$?

## Q5

What happens to the graph of $y = f(x)$ when it is transformed to: (a) $y = f(|x|)$ (b) $|y| = f(x)$