

Graph Transformation Worksheet – Higher

For the following transformations describe in words the transformation and state the Image of the given point. The first one has been done for you.

Transformation and point	Describe	Image
$y = 2f(x - 3) - 1$ $(2, -3)$	Horizontal shift of 3 units right, vertical stretch by a factor of 2 and vertical shift of 1 unit down. $(2, -3) \rightarrow (5, -3) \rightarrow (5, -6) \rightarrow (5, -7)$	$(5, -7)$
$y = f(x) + 2$ $(-1, 0)$		
$y = 4f(x)$ $(1, -4)$		
$y = f(x - 3)$ $(0, 2)$		
$y = 1.5f(x)$ $(2, -3)$		
$y = f(x) - 4$ $(2, -7)$		
$y = -f(x)$ $(5, 0)$		
$y = f(-x)$ $(-3, -3)$		
$y = f(x + 2)$ $(-2, -1)$		

Harder!

Transformation and point	Describe	Image
$y = -2f(x)$ $(2, -3)$		
$y = f(-3x)$ $(1, -4)$		
$y = -3f(x - 3) - 1$ $(-2, -5)$		
$y = -f(2x - 4) + 5$ $(1, -4)$		
$y = f(0.5x)$ $(5, 12)$		