

3. Copy and complete the table by describing the transformations of the given functions, compared to the function $y = f(x)$.

Function	Reflections	Vertical Stretch Factor	Horizontal Stretch Factor	Vertical Translation	Horizontal Translation
$y = f(x-5) + 4$ ← $y - 4 = f(x - 5)$	No	No	No	4 ↑	5 Right
$y = 2f(3x) - 5$ ← $y + 5 = 2f(3x)$	No	by 2	$\frac{1}{3}$	5 ↓	No
$y = \frac{1}{2}f\left(\frac{1}{2}(x-4)\right)$ ← $y = \frac{1}{2}f\left(\frac{1}{2}(x-4)\right)$ as is	No	by $\frac{1}{2}$	by $\frac{1}{2} = 2$	No	4 Right
$y = -3f(2(x+2)) - 2$ ← $y + 2 = -3f(2(x+2))$	Yes vertical	by 3	by $\frac{1}{2}$	2 ↓	2 Left