

Describe the transformation from the $f(x)$ to $g(x)$.

1. $f(x) = x^2$

$$g(x) = 2(x + 1)^2 - 3$$

2. $f(x) = |x|$

$$g(x) = -\frac{1}{3}|x - 3|$$

1. Write the function $f(x) = x^2$ under the following transformations

Vertical Compression by a factor of $\frac{1}{4}$

Shift up 3

Shift right 8

Reflection over x-axis

2. Write the function $f(x) = |x|$ under the following transformations

Vertical Stretch by factor of 2

Shift left 1

Down 7