



## Function Transformations (Definition) - Single Definition (Values) to Transformation

1 Which function  $g(x)$  shows this transformation of  $f(x)$ ?

**Vertical stretch: 4**

A  $g(x) = f(4x)$       B  $g(x) = 4f(x)$

2 Which function  $g(x)$  shows this transformation of  $f(x)$ ?

**Horizontal compression: 3**

A  $g(x) = f(3x)$       B  $g(x) = 3f(x)$

3 Which function  $g(x)$  shows this transformation of  $f(x)$ ?

**Reflect in X-Axis**

A  $g(x) = f(-x)$

B  $g(x) = -f(x)$

4 Which function  $g(x)$  shows this transformation of  $f(x)$ ?

**Shift down: 3**

A  $g(x) = f(x) - 3$

B  $g(x) = f(x) + 3$

5 Which function  $g(x)$  shows this transformation of  $f(x)$ ?

**Vertical compression: 0.2**

A  $g(x) = 0.2f(x)$       B  $g(x) = f(0.2x)$

6 Which function  $g(x)$  shows this transformation of  $f(x)$ ?

**Shift right: 3**

A  $g(x) = f(x + 3)$       B  $g(x) = f(x) + 3$   
C  $g(x) = f(x - 3)$

7 Which function  $g(x)$  shows this transformation of  $f(x)$ ?

**Vertical stretch: 5**

A  $g(x) = 5f(x)$       B  $g(x) = f(5x)$

8 Which function  $g(x)$  shows this transformation of  $f(x)$ ?

**Shift left: 5**

A  $g(x) = f(x + 5)$

B  $g(x) = f(x - 5)$