

mobius

Function Transformations (Definition) Single Definition (Variables) to



Which function g(x) shows this transformation 2

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

Vertical compression: q|Horizontal compression: n

Α	$g(x) = q \cdot f(x) \ q < 1$	$ B \qquad \qquad g(x) = q \cdot f(x) \\ q > 1 $	Α	$g(x) = f(n \cdot x) \ n \geq 1$	$B \qquad \qquad g(x) = f(n \cdot x) \\ n < 1$
С	$g(x) = f(q \cdot x) \ q > 1$		С	$g(x) = n \cdot f(x) \ n < 1$	

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

Which function g(x) shows this **Shift down:** ntransformation of f(x)?

Vertical compression: t

A
$$g(x) = f(t \cdot x)$$
 B $g(x) = t \cdot f(x)$ $t < 1$ C $g(x) = t \cdot f(x)$ $t < 1$

$$^{\mathsf{A}}g(x)=f(x+n)$$
 $^{\mathsf{B}}g(x)=f(x)+n$

$$^{\mathtt{c}}\,g(x)=f(x)-n$$

5

7

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

Shift down: p

Reflect in Y-Axis

$$egin{aligned} g(x) &= -f(x) \ g(x) &= f(-x) \end{aligned} ^{ extstyle A}$$

g(x) = f(x+p)

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

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

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

Horizontal compression: p

Shift down: r

$g(x) = p \cdot f(x)$ $g(x) = f(p \cdot x)$ g(x) = f(x) + rg(x) = f(x) - rС $g(x) = f(p \cdot x)$ g(x) = f(x+r)