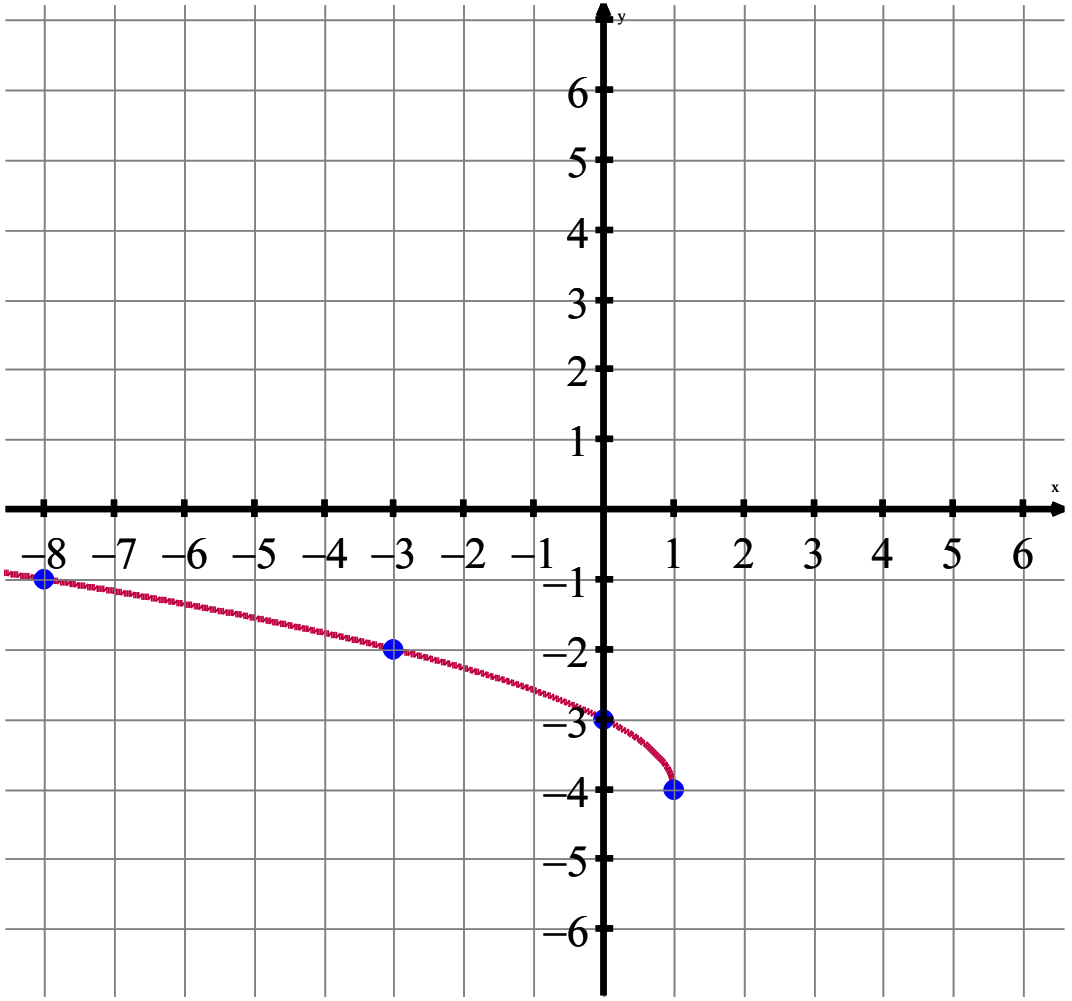
Transformations of Square Roots

Describe each transformation.

g(x) = $\sqrt{x}$ - 3	Vertical shift down 3
h(x) = $\sqrt{x+1}$	Horizontal shift left 1
j(x) = 3 $\sqrt{x-2}$	Hor. shift right 2, vert. stretch by 3
k(x) = ¼ $\sqrt{x}$ + 1	Vert. compression by ¼, shift up 1
m(x) = $\sqrt{2x}$	Horizontal compression by ½
n(x) = $\sqrt{¼x}$	Horizontal stretch by 4
p(x) = $-\sqrt{x}$	Reflect over x-axis
q(x) = $\sqrt{-x}$	Reflect over y-axis

Describe the transformation and graph the function

f(x) = $\sqrt{1-x}-4$



Simplify f(x):

f(x) = $\sqrt{-(x-1)}-4$

Transformations:

-Shift down 4

-Shift right 1

-Horizontal reflection

What type of transformation(s) will affect the…

Range: Vertical shift, vertical reflection

End Behavior: Vertical reflection, horizontal reflection

Domain: Horizontal reflection, horizontal shift