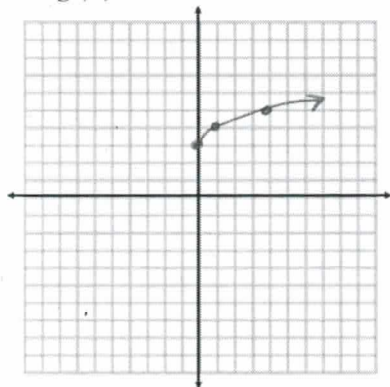
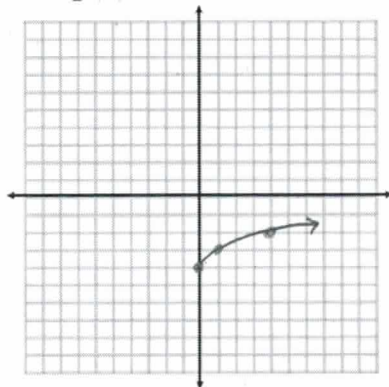


Describe the transformations and graph each function. List the domain and range of each function.

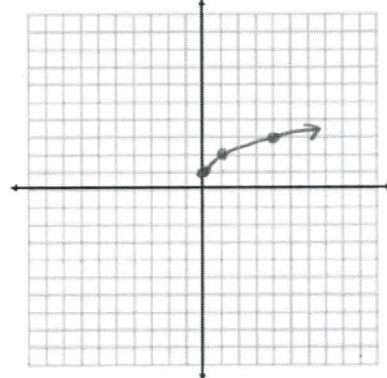
1.  $g(x) = 3 + \sqrt{x}$      $\uparrow 3$      $D: [0, \infty)$   
 $R: [3, \infty)$



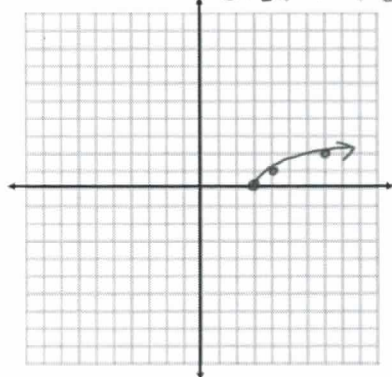
2.  $g(x) = -4 + \sqrt{x}$      $\downarrow 4$      $D: [0, \infty)$   
 $R: [-4, \infty)$



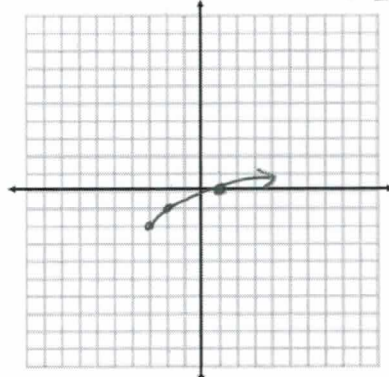
3.  $g(x) = \sqrt{x+1}$      $\uparrow 1$      $D: [0, \infty)$   
 $R: [1, \infty)$



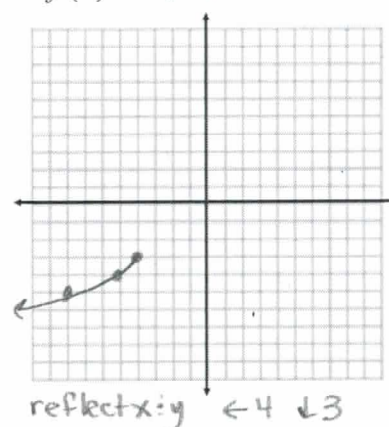
4.  $h(x) = \sqrt{x-3}$      $\rightarrow 3$      $D: [3, \infty)$      $R: [0, \infty)$



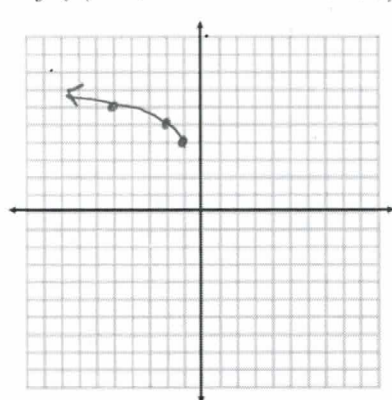
5.  $h(x) = \sqrt{x+3} - 2$      $\leftarrow 3 \downarrow 2$      $D: [-3, \infty)$   
 $R: [-2, \infty)$



6.  $f(x) = -\sqrt{-x-4} - 3$      $-\sqrt{-(x+4)} - 3$

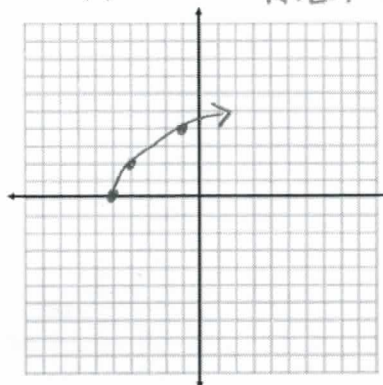


7.  $f(x) = \sqrt{-x-1} + 4$      $\sqrt{-(x+1)} + 4$      $D: (-\infty, -1]$   
 $R: (4, \infty)$



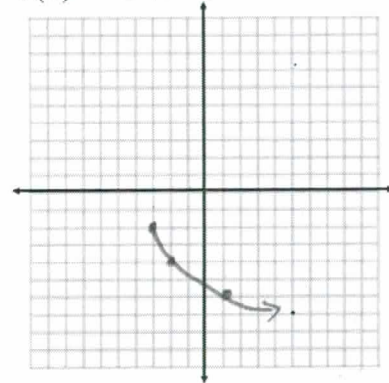
reflect over y  
 $\uparrow 4 \leftarrow 1$

8.  $h(x) = 2\sqrt{x+5}$      $D: [-5, \infty)$   
 $R: [0, \infty)$



vertical stretch 2  
 $\leftarrow 5$

9.  $k(x) = -2\sqrt{x+3} - 2$



reflect over x  
vertical stretch 2  
 $\leftarrow 3 \downarrow 2$