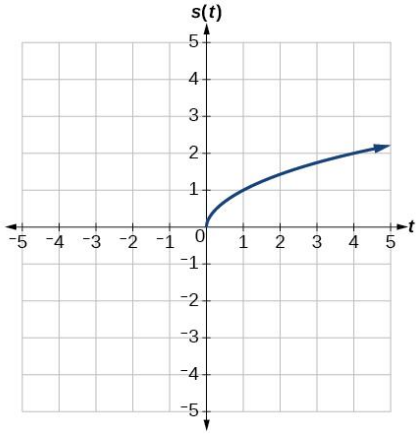
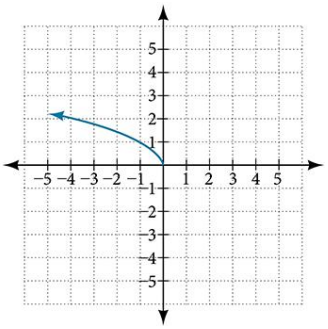
1.5 Answer Key

Practice 5-3-1:

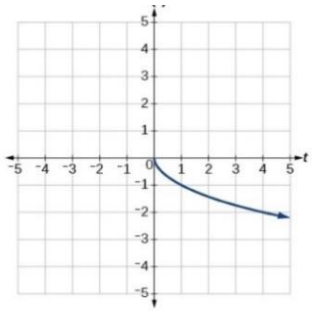
Given the graph $s(t) = \sqrt{t}$, select the correct graph the transformed function $s(t) = \sqrt{-t}$



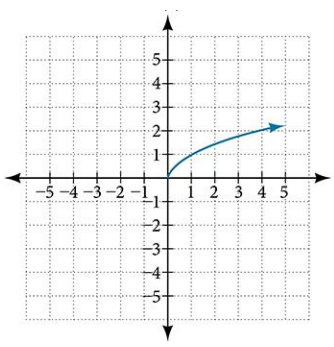
a)



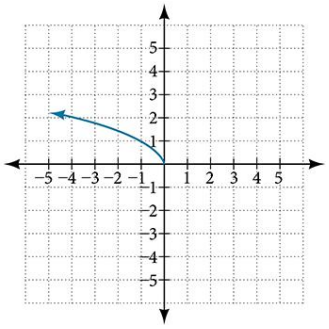
b)



c)



d)



When we compare the given function with the transformed function, we see that the independent variable t in this question has the opposite sign. Thus, the function reflects horizontally.

We can also use specific points to support this.

For example, the original graph has the points (0, 0), (1, 1), and (4, 2). Based on the transformed function, we can find the corresponding new points: (0, 0), (−1, 1), and (−4, 2).

Thus, the answer is d.