

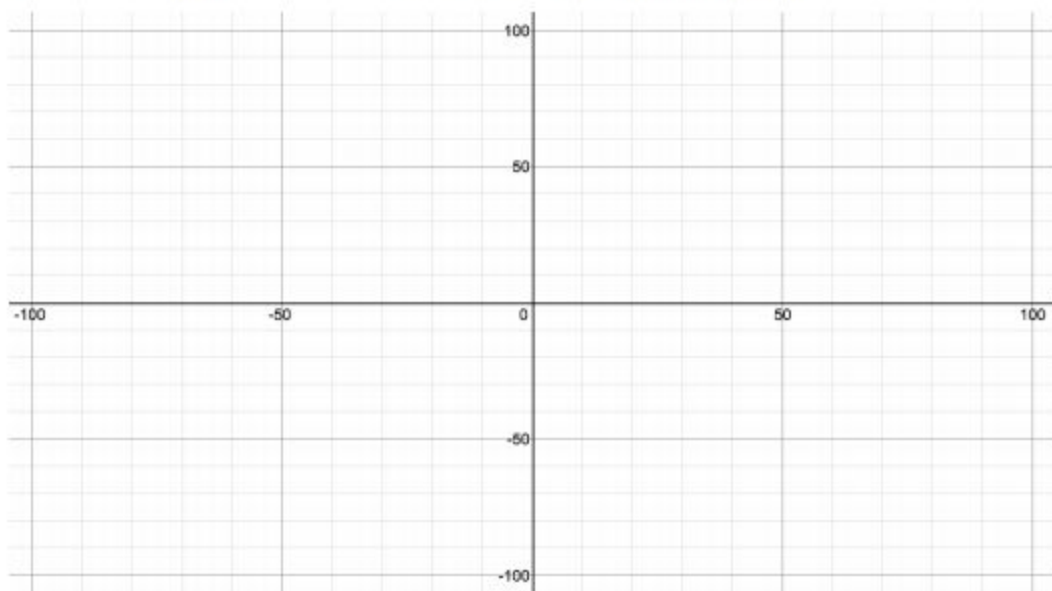
11. **REINFORCE** Write a function rule to match each of the transformations to the graph of $y = \sqrt{x}$ described below.

- a. The parent function has been shifted left 5 units and up 1 unit.

- b. The parent function has been reflected across the x -axis and shifted down 3 units.

- c. The parent function has been vertically stretched by a factor of 3, shifted right 2 units, and shifted up 4 units.

18. **REINFORCE** Sketch the graph of $y = \sqrt{x}$. Then sketch the graphs of $y = \sqrt{100x}$, $y = \sqrt{-100x}$, and $y = -\sqrt{100x}$ and describe the transformations.



19. **REINFORCE** Write your own description of a series of transformations and the function rule that matches that description.