

Describe how the graph of each function relates to its parent function. Then graph.

8. $y = \left(\frac{1}{2}\right)^{x+3}$

9. $y = 3(5)^{x-2} + 1$

Write the new function for each translation of the parent function $y = ab^x$.

11. 4 units down

12. 2 units left

13. 1 unit right and 3 units up.