

1. Use the information in the table to answer the following questions.

Input, x	Process	Output, y
0	$3 \cdot 2^0$	3
1	$3 \cdot 2^1$	6
2	$3 \cdot 2^2$	12
3	$3 \cdot 2^3$	24

a. What type of function could be model the data in this table?

b. Complete the to find a function rule that models this relationship.

Input, x	Process	Output, y
4		
5		
n		

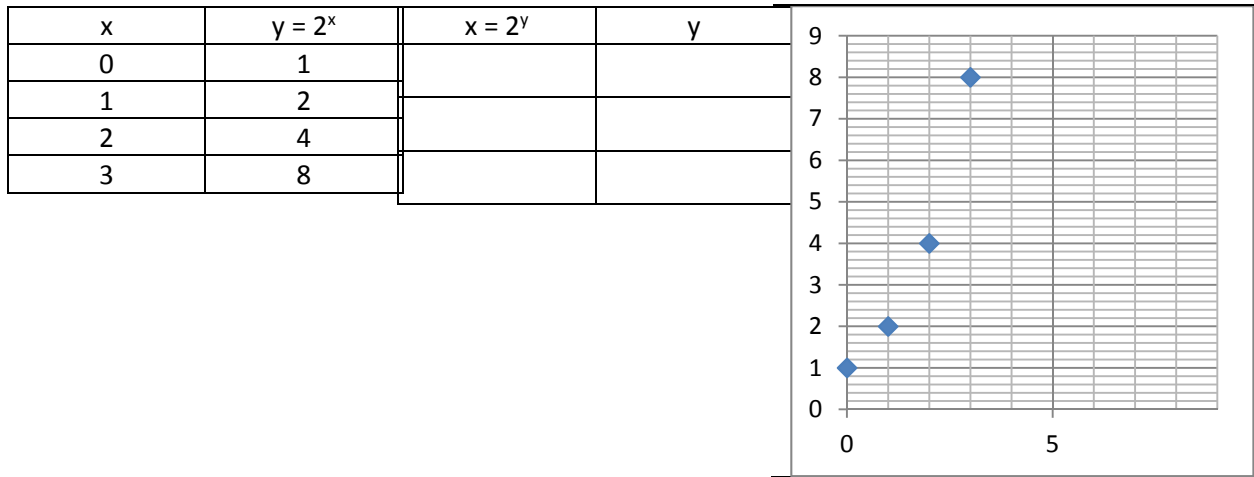
c. Graph the function rule that represents this relationship between x and y.



d. How do the domain and range of the function rule compare to the domain and range of the problem situation?

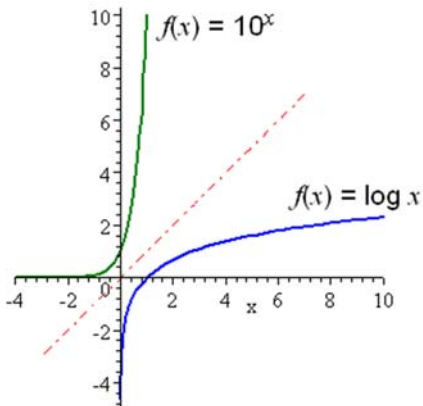
e. What will the output be when the input is 10? Show how you got your answer.

2. Complete the table to show the inverse of $y = 2^x$. Then complete the scatterplot for the inverse.



3. What type of function models the inverse of $y = 2^x$?

4. Examine the graphs of the two given functions. How do the domain and range of the exponential function compare to the domain and range of the logarithmic function?



5. What is the inverse of $y = 4^x$? Graph this function and its inverse.

Inverse Function	Graph	Domain and Range of Inverse