

Name:

Date:

Graphs and LOGs

Part I: LOGs and Graphs

1. Fill out the table for the function $y = 2^x$
2. Using the table, graph the function $y = 2^x$ on graph paper. Be sure to put the x axis all the way at the bottom of the page and the y axis to the left of the page. What kind of shape do you get? What do you call this function?

x	2^x
0	
1	
2	
3	
4	
5	
6	
7	

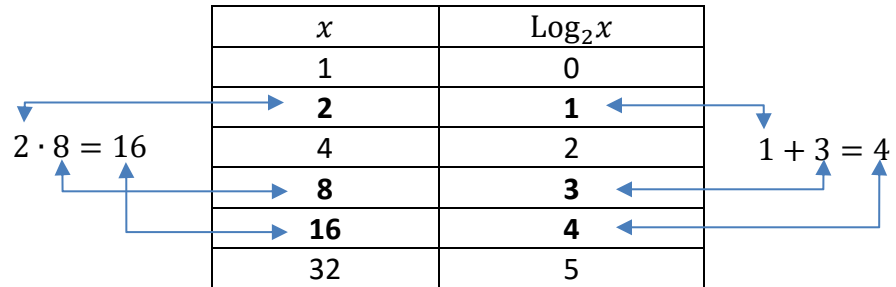
3. Using the same set of axis, for each point (x, y) , graph the point $(x, \log_2 y)$. What kind of shape do you get? What do you call this kind of function? What is the equation of this graph?

(x, y)	$(x, \log_2 y)$

4. Why would taking the \log_2 of the graph of $y = 2^x$ turn it into a _____ function? Explain.
5. Which property (or properties) of LOGs display this?

Part II: Multiplication to Addition

In learning about LOG properties we saw that multiplying two numbers corresponds to adding the LOGs of their arguments. For example:



6. Which property (or properties) of LOGs display this? Show another example.