

Exponential Functions: Different Types of Equations

1) Complete the table and graph the function $y = 2^x$.

x	-3	-2	-1	0	1	2	3
y							

2) Complete the table, then graph the function $y = 2^x + 2$ on the same coordinate plane:

x	-3	-2	-1	0	1	2	3
y							

3) Without making a table, draw in your prediction of what you think the graph of the function $f(x) = 2^x - 3$ would look like.

4) Complete the table and graph the function $y = 3^x$.

x	-2	-1	0	1	2
y					

5) Complete the table, then graph the function $y = 3^{x-2}$ on the same coordinate plane:

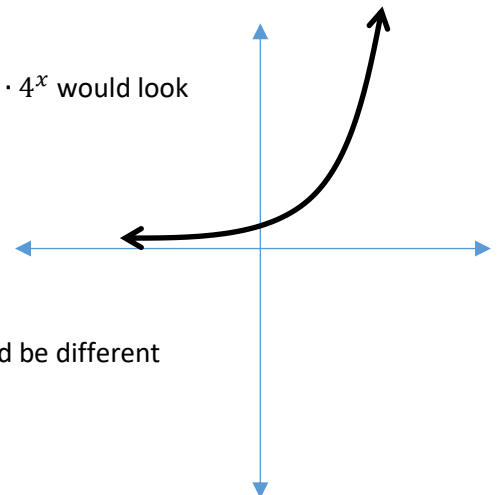
x	-1	0	1	2	3	4
y						

6) Without making a table, draw in your prediction of what you think the graph of the function $y = 3^{x+4}$ would look like.

7) a. Suppose the graph below right represents $y = 4^x$. On the same coordinate plane, draw what you think the graph of $y = 3 \cdot 4^x$ would look like. Label this graph "a".

b. On the same coordinate plane, draw what you think the graph of $y = \frac{1}{10} \cdot 4^x$ would look like. Label this graph "b".

c. On the same coordinate plane, draw what you think the graph of $y = -1 \cdot 4^x$ would look like. Label this graph "c".



8) (challenge) Explain, in words, how you think the graph of $y = 2 \cdot 5^{x-3} + 7$ would be different than the graph of $y = 5^x$.