Graphing Exponential Functions

Name _____

Date _____ Period _____

An exponential function is in the form

$$y = a \cdot b^x$$

where $a \neq 0$ and b is greater than 0 and not equal to 1

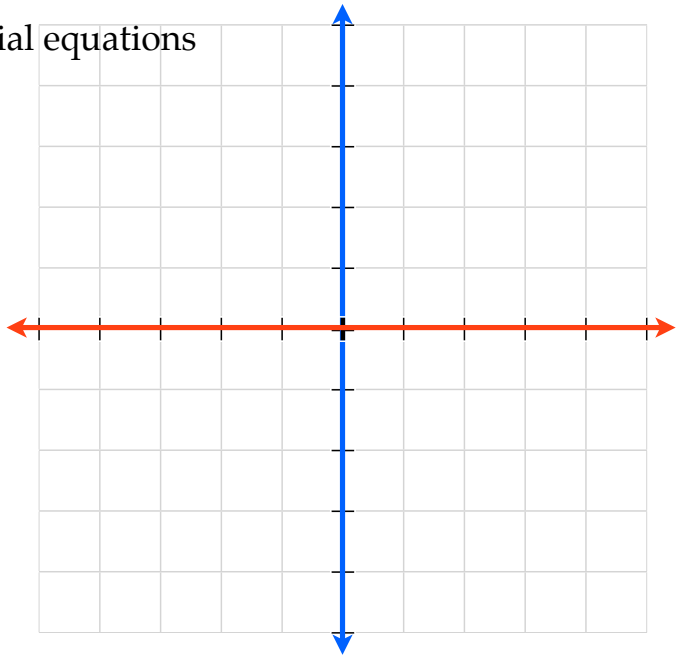
Examples:

$y = 3 \cdot 2^x$ $y = 0.5 \cdot 2^x$ $y = 5 \cdot 0.5^x$

Create a table to graph the following exponential equations

$y = 1 \cdot 2^x$

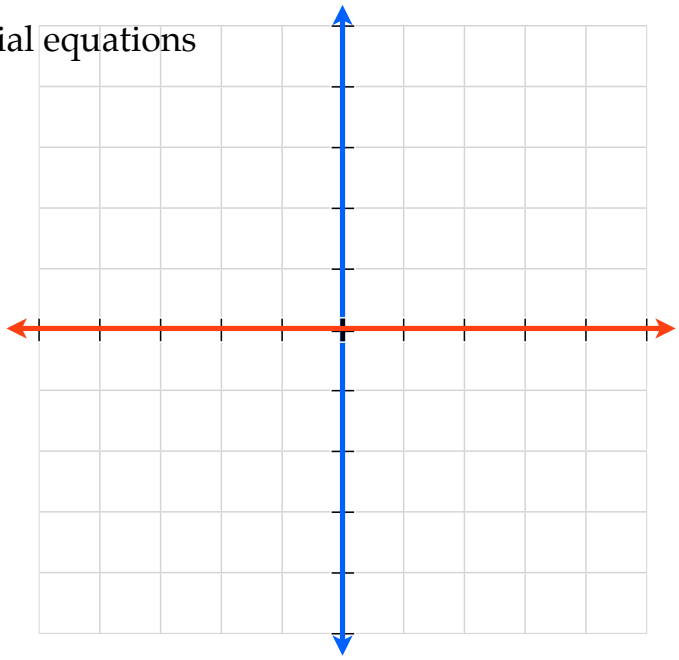
x	y
-2	
-1	
0	
1	
2	



Create a table to graph the following exponential equations

x	y
-2	
-1	
0	
1	
2	

$$y = 1 \cdot \left(\frac{1}{2}\right)^x$$



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-1	
0	
1	
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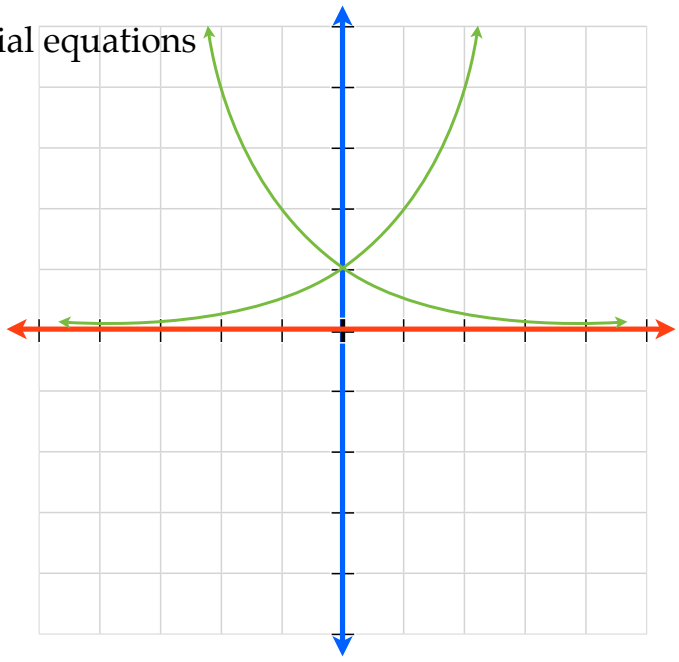
$$y = 1 \cdot \left(\frac{1}{2}\right)^x$$

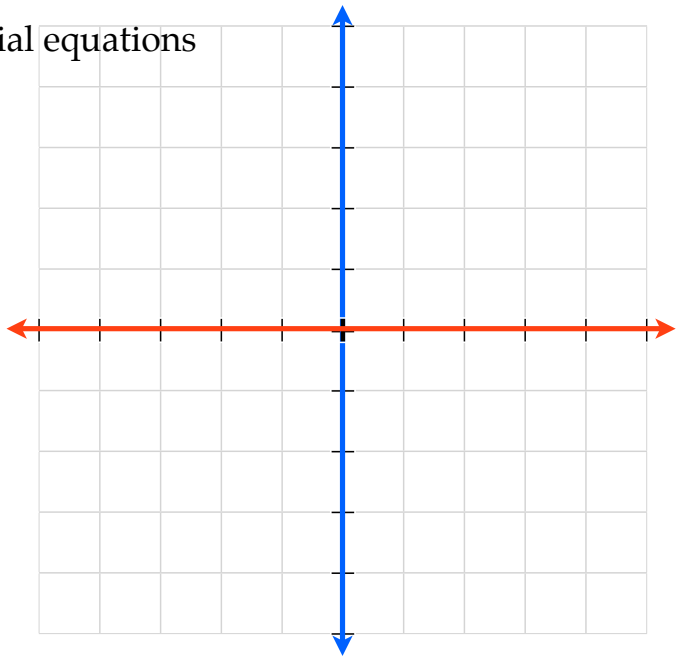
$$y = 1 \cdot 2^x$$



Create a table to graph the following exponential equations

x	y
-2	
-1	
0	
1	
2	

$y = -1 \cdot 2^x$

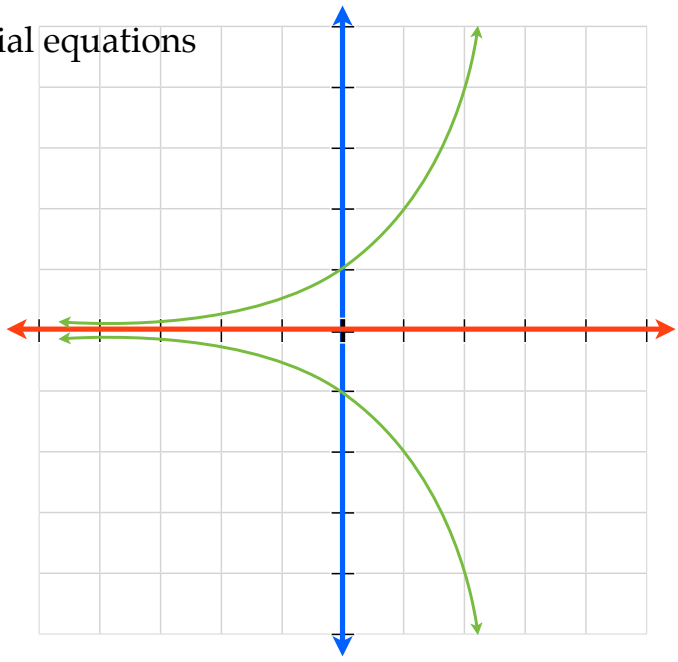


Create a table to graph the following exponential equations

x	y
-2	
-1	
0	
1	
2	

$y = -1 \cdot 2^x$

$y = 1 \cdot 2^x$



Create a table to graph the following exponential equations

x	y
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-1	
0	
1	
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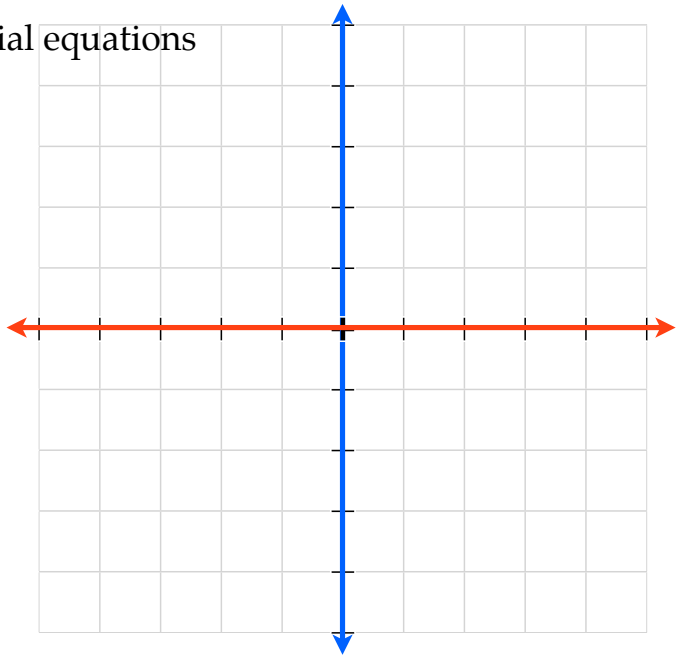
$$y = -1 \cdot \left(\frac{1}{2}\right)^x$$



Create a table to graph the following exponential equations

x	y
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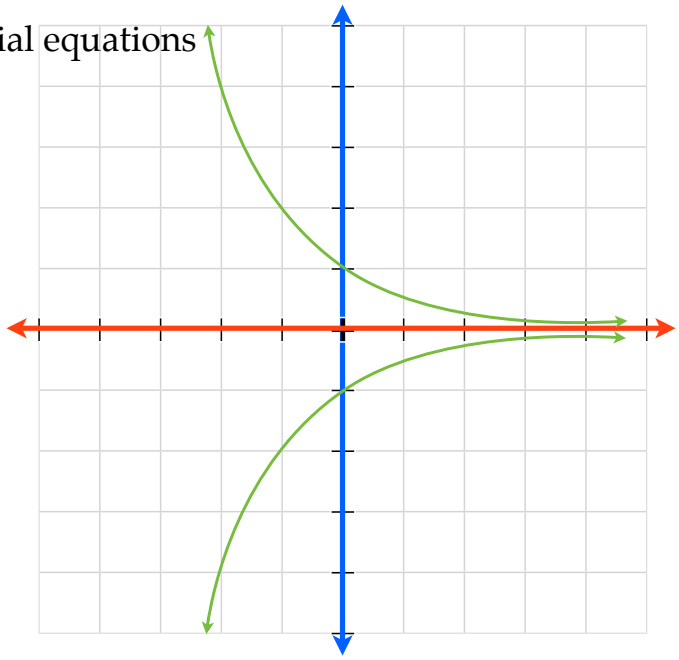
-1	
0	
1	
2	

$$y = -1 \cdot \left(\frac{1}{2}\right)^x$$

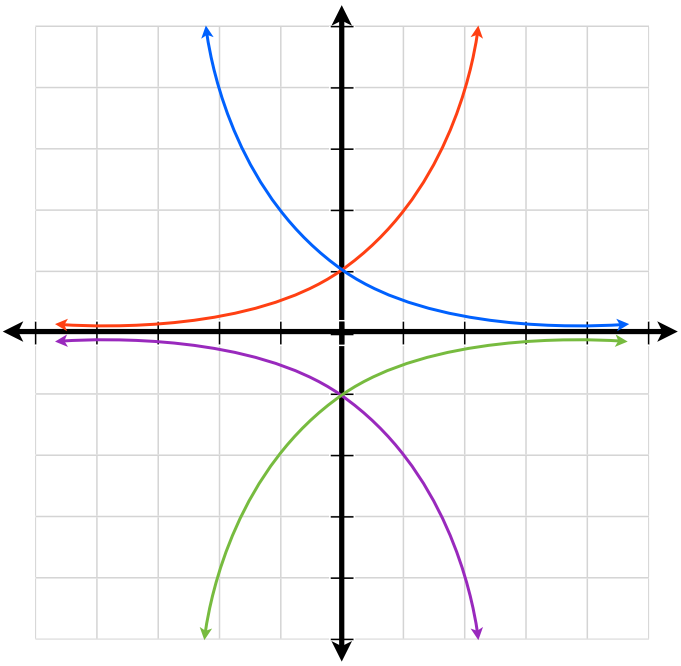
$$y = 1 \cdot \left(\frac{1}{2}\right)^x$$



$y = 1 \cdot \left(\frac{1}{2}\right)^x$

$a = 1$

$b = \frac{1}{2}$



$y = 1 \cdot 2^x$

$a = 1$

$b = 2$

$y = -1 \cdot \left(\frac{1}{2}\right)^x$

$a = -1$

$b = \frac{1}{2}$

$y = -1 \cdot 2^x$

$a = -1$

$b = 2$