

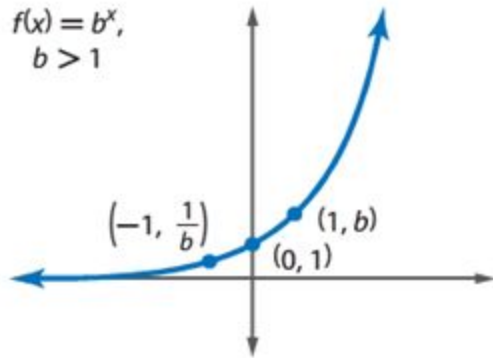
Goals:

- I can graph exponential growth functions.
- I can graph exponential decay functions.

HW: Complete the worksheet

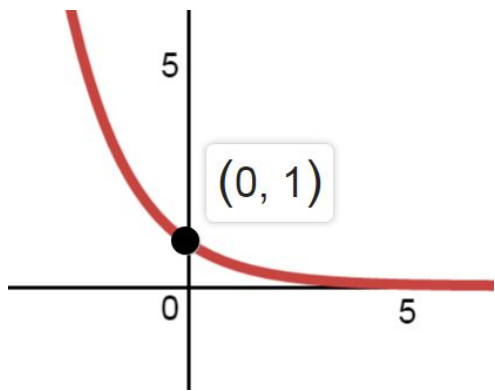
Name:

Algebra II
Graphing Exponential Functions



Exponential Growth Examples:

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Exponential Growth Examples:

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Example 1: Graph each function. State the domain and range.

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

x	$y = \left(\frac{1}{3}\right)^x$
-3	
-2	
0	
1	
2	

D: { }

R: { }

b. $y = 2\left(\frac{1}{4}\right)^{x+2} - 3$

x	$y = 2\left(\frac{1}{4}\right)^{x+2} - 3$
-3	
-2	
0	
1	
2	

D: { }

R: { }

Real World Example 2: A cup of green tea contains 35 milligrams of caffeine. The average teen can eliminate approximately 12.5% of the caffeine from their system per hour.

a. **Draw a graph to represent the amount of caffeine remaining after drinking a cup of green tea.**

b. **Estimate the amount of caffeine in a teenager's body 3 hours after drinking a cup of green tea.**