

Name: _____ Period: ____ Due Date: March 25, 2019

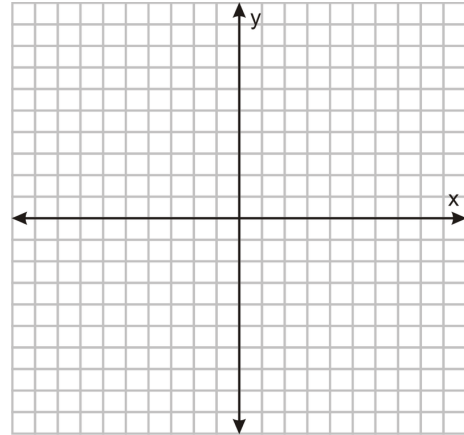
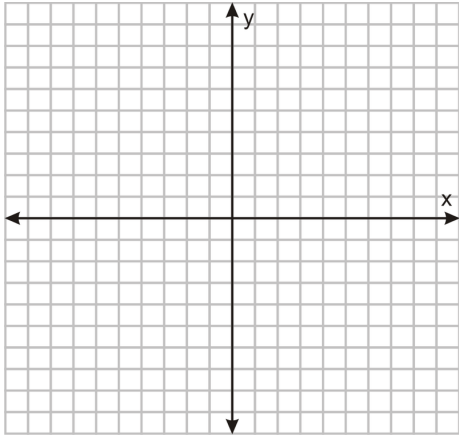
(MATH 5)

Exponentials Homework #9

Directions: Graph the exponential function and find the key characteristics. (You can count the lines by whatever you would like; example 5, 10, 15, 20, etc.)

1. $f(x)=5^x$

2. $g(x)=(\frac{1}{2})^x$



Domain	
Range	
Asymptote	
X-Intercept	
Y-Intercept	
End Behavior	
Interval of Increase/Decrease	

Domain	
Range	
Asymptote	
X-Intercept	
Y-Intercept	
End Behavior	
Interval of Increase/Decrease	

Directions: Write an exponential function that models the problem and find the specified value.

1. Lyman bought a car after college. He decided to buy a brand-new Chevy Corvette from the dealership. It cost \$60,000 and the value will depreciate (decrease) by 20% every year. How much will his car be worth after 15 years?

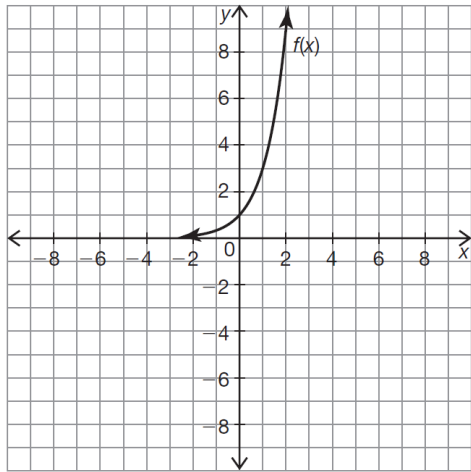
2. Joseph put \$1000 into a bank account after his first paycheck at his job as an accountant. The bank offers 4% interest compounded quarterly. How much will be in his bank account after 10 years?

3. The population of polar bears in Alaska is decreasing at a rate of about 0.95% each year. The polar bear population in Alaska in 1998 was approximately 25,000.
 - a. What will be the population in 2018?

 - b. What was the population in 1988?

Directions: Graph the transformation and describe each of the transformations.

1. $g(x) = -\frac{1}{3}f(-x) - 2$



$f(x)$ was _____

 _____ to obtain $g(x)$.

Domain	
Range	
Asymptote	
X-Intercept	
Y-Intercept	
End Behavior	
Interval of Increase/Decrease	