

MasterMath

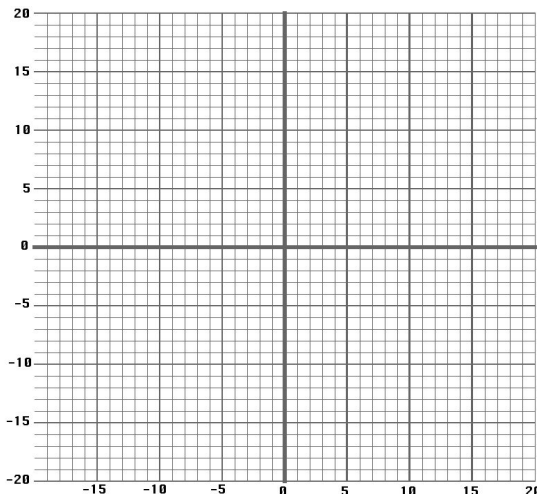
Write and Graph Exponential Growth and Decay Functions

Name _____

Date _____

1. Write an equation that describes the relationship shown in this table. Graph the relationship in red. Describe the domain and range.

x	y
-2	0.75
-1	1.50
0	3.00
1	6.00
2	12.00



Equation
Domain
Range

2. Graph $y = 2^x$ in green on the same graph as used in Question #1.

x	y

3. Graph $y = 2 \cdot \frac{1}{5}^x$ in orange on the same graph as used in Question #1 & 2.

x	y

4. A mouse population is 25,000 and is decreasing in size at a rate of 20% per year. What is the mouse population after 3 years?



Equation
Number of Mice

5. Jackson has \$10 in a savings account. The interest rate is 5%, compounded annually. To the nearest cent, what will be his account balance in 6 years?

Equation
Account Balance

6. Georgetown High School has student elections every year. Lately, the school has seen a 5% decrease in voting from election to election. If 320 students voted this year, how many will be expected to vote 4 years from

Equation
Expected Voters