Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Exponential Growth and Decay Practice**

 

1. You deposit $1500 in an account that pays 5% interest compounded yearly. Find the balance after 6 years.
2. The mice population is 25,000 and is decreasing by 20% each year. Write a model for this situation. What will be the mice population after 3 years?
3. Given the exponential model y = 200(.80)x, tell whether the model represents exponential growth or decay. Then, tell what the growth/decay factor is and the growth/decay percent.
4. I bought a car for $25,000, but its value is depreciating at a rate of 10% per year.
   1. How much will the car be worth after 8 years?
   2. When will the car be worth half of its value?