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**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. The number of mosquitoes at the beach has tripled every year since 1999. In 1999, there were 2,500 mosquitoes. Write a model for this situation. How many mosquitoes would you predict were at the beach in 2005?
4. 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.
5. I bought a car for $25,000, but its value is depreciating at a rate of 10% per year.  How much will my car be worth after 8 years?