**Exponential Applications Compound Interest**



1. 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 compounded quarterly?
2. You invest $2500 into a bank account for 5 years. If the bank offers 3.8% interest, how much will you have in the bank account if the bank compounds it:
   * 1. Annually

* + 1. Weekly
    2. Monthly
    3. Quarterly

1. 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?