1. The number of camera phones shipped globally can be modeled by the function $y = 1.28e^{1.31x}$ where $x$ is the number of years since 1997 and $y$ is the number of camera phones shipped (in millions). How many camera phones were shipped in 2002?

2. You deposit $2500 into an account that pays 4.5% annual interest compounded with the given frequencies. What is the balance after 5 years for each frequency?
   a. continuously:
   b. quarterly:
   c. daily:
   d. monthly

3. You purchase a car of $37,000. The car depreciates at an annual rate of 15%. Find the value of the car 7 years after you purchased the car.

4. You purchase a coin from a collector for $25. Each year the value of the coin increases by 8%.
   a. Write a function that models the value of the coin after $t$ years.
   b. Find the value of the coin after 10 years.

5. You deposit $800 into an account that pays 2.56% annual interest. How much will remain in the account after 12.5 years given each frequency?
   a. monthly
   b. continuously
6. Tritium is a radioactive substance used to illuminate EXIT signs. The amount of tritium disappears over time, a process called radioactive decay. If you start with a 10 milligram sample of tritium the number \( y \) of milligrams remaining after \( t \) years is given by the model: \( y = 10e^{-0.0564t} \). How many milligrams of tritium are left after 10 years?

9. You deposit $100 into an account that yields 1.5% annual interest compounded continuously. How much money is in the account after 20 years?

7. An acidophilus culture containing 150 bacteria doubles in population every hour. Predict the number of bacteria after 12 hours?

10. Scientists used traps to study the Formosan subterranean termite population in New Orleans. The mean number \( y \) of termites collected annually can be modeled by \( y = 738e^{0.345t} \) where \( t \) is the number of years since 1989. What was the mean number of termites collected in 1999?

8. In 1626, the Dutch bought Manhattan Island, now part of New York City, for $24 worth of merchandise. Supposed the land appreciated at a rate of 3.5% each year. Find the balance in 2008.