1. There are 500 bacteria present initially in a culture. The culture grows at 11% each day.
   a. Find an equation for the number of bacteria per day. (You should make a table.)
   b. Find when there will be 1500 bacteria.

2. Use the formula to find the monthly payments of a loan.

\[
P = A \left[ \frac{i}{1 - (1 + i)^{-n}} \right]
\]

where

- \( P \) is the monthly payment
- \( A \) is the amount of the loan
- \( n \) is the number of payments
- \( i \) is the interest rate per month

to answer the question:

Susan B. Anthony can afford a $300 a month car payment at 4% interest, how expensive of a car can she afford if her loan is for 24 months? 36 months?