7. [7 points]
   a. [3 points] A new car was sold at 35 thousand dollars. Its value depreciates 5.4 percent every year. Let \( V(t) \) be the value of the car, in thousand dollars, \( t \) years after it was sold. Find a formula for \( V(t) \).

   \[
   \text{Solution: } V(t) = 35(1 - 0.054)^t = 35(0.946)^t
   \]

   b. [4 points] Let \( B(t) \) be the population of bats in a cave \( t \) years after 2000, where

   \[
   B(t) = 300(1.152)^{2t}
   \]

   1. How many bats are in the cave in 2015?

   \[
   \text{Solution: } B(15) = 300(1.152)^{30} \approx 20926.45
   \]

   2. What is the annual percentage growth rate of this population? Your answer must be exact or accurate up to the first three decimals. Show all your work.

   \[
   \text{Solution: } \text{Since } b = (1.152)^2, \text{ then } r = (1.152)^2 - 1 \approx 0.327
   \]