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 $V(t)$.

$$V(t)=\underline{\hspace{5cm}}$$

    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?

$$\text{Answer:}\underline{\hspace{5cm}}$$

      2. What is 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.

$$\text{Answer:}\underline{\hspace{5cm}}$$