

1. A used car was purchased in July 1999 for \$11,900. If the car depreciates 13% of its value each year, what is the value of the car, to the *nearest hundred dollars*, in July 2002?

1.

2. On January 1, 1999, the price of gasoline was \$1.39 per gallon. If the price of gasoline increased by 0.5% per month, what was the cost of gasoline, to the *nearest cent*, on January 1st one year later?

2.

3. The current population of Little Pond, New York is 20,000. The population is *decreasing*, as represented by the formula $P = A(1.3)^{-0.234t}$, where P = final population, t = time, in years, and A = initial population.
What will the population be 3 years from now? Round your answer to the *nearest hundred people*.
To the *nearest tenth of a year*, how many years will it take for the population to reach half the present population?

3.

4. After an oven is turned on, its temperature, T , is represented by the equation $T = 400 - 350(3.2)^{-0.1m}$, where m represents the number of minutes after the oven is turned on and T represents the temperature of the oven, in degrees Fahrenheit. How many minutes does it take for the oven's temperature to reach 300° F? Round your answer to the *nearest minute*.

4.
