

1. Ted's comic book collection, which was worth \$1300 five years ago, has been increasing in value by 12% per year since then. Which is the current value of the collection?

2. The student population of Gloomy Valley High School has been steadily decreasing by 2% per year. If its population 8 years ago was 1200, which is the population now?

3. A balloon with a small leak loses 1% of its volume each day. If it originally contained 24 liters of gas, what is the volume of the gas after one week?

4. Lorena deposited \$9000 into an account that earns 4.25% interest each year. Write an equation for the amount, A , in the account after t years. In how many years will her account exceed \$20,000? If she waits for 50 years, how much will be in her account?
5. The population of a small farming community is declining at a rate of 7% per year. The decline can be expressed by the exponential equation $P = C(1 - 0.07)^t$, where P is the population after t years and C is the current population. If the population was 8,500 in 2004, when will the population be less than 6,000?