- 1. In 1996, there were 2573 computer viruses and other computer security incidents. During the following years, the number of incidents increased by about 92% each year.
  - a. Write an exponential model giving the number of incidents t years after 1996.
  - b. About how many incidents were there in 2017?
  - c. In what year were there about 500,000 incidents?

- 2. In 2000, the average price of a football ticket for Minnesota Viking's game was \$48.28. During the following years, the price increased an average of 6% each year.
  - a. Write a model giving the average price (in dollars) of ticket t years after 2000.
  - b. Estimate the year when the average price of a ticket was about \$100.

- 3. A new snowmobile costs \$4200. The value of the snowmobile decreases by 10% each year.
  - a. What will the value of the snowmobile be after 28 years? Is this a reasonable value? Explain.
  - b. Estimate when the value of the snowmobile will be \$2500.

- 4. You deposit \$5500 in an account that pays 1.7% annual interest.
  - a. Find the balance after 2 years if interest is compounded:
    - i. Monthly?
    - ii. Semiannually?
    - iii. Quarterly?
    - iv. Weekly?
    - v. Continuously?
  - b. Approximately how many years would it take for your account balance to be \$10,000, if compounded quarterly?

c. Approximately how many years would it take for your account balance to be \$10,000, if compounded continuously?