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?
