

11-3 Geometric Sequence Application Problems

1. A culture initially contains 200 bacteria. If the number of bacteria doubles every 2 hours, how many bacteria will be in the culture at the end of 12 hours?
3. If you save \$.05 on the first day and double it each day thereafter, how much money will you have saved on day 20?
5. A real estate agent is selling a house for \$100,000. She is telling a prospective buyer that the house will increase in value by 10% each year. What will the cost of house be in 5 years?
7. Heavy rain in Christian's town caused the river to rise. The river rose 3 inches the first day, and each day twice as much as the previous day. How much did the river rise in five days?
13. A plant grows 1.67 cm in its first week. Each week it grown by 4% more than it did the week before. By how much does it grow in nine weeks, including the first week?
15. Sam has purchased a \$30,000 car for his business. The car depreciates 30% every year. What will the value of his car be after the 5th year? (Note: when he first buys a car it is really year 0.)