Name: Date: Period:

Show the appropriate formula, substitution, and calculations on a **separate sheet of paper**. Round your answer to the nearest whole number, unless otherwise instructed, and be sure to answer the question being asked.

1. A business purchases a computer system for $2000. The tax code allows them to take off a portion of that purchase for each year the computer system is used. If the value of the system is depreciated at a rate of 15% per year, how much is the computer worth after 4 years?	2. A fisheries manager determines that there are approximately 3000 bass in a lake. The population is growing at a rate of 2% per year. How many bass will live in the lake after 4 years?
3. The town manager reports that incoming revenues for a given year were $500,000. The budget director predicts that revenues will increase by 4% per year. How much revenue will the town have available 5 years from the date of the town manager's report?	4. Find the balance in an account with $3000 principal earning 4% compounded annually, after 6 years.
5. Find the balance in an account with $2000 principal earning 6.8% compounded annually, after 3 years.	6. Find the balance in an account with $5000 principal earning 4% compounded annually, after 10 years.
7. Find the balance in an account with $3500 principal earning 3.6% compounded annually, after 2 years.	8. The population of Leave town is 123,000 and is decreasing at a rate of 2.375% each year. What will the population of Leave town be 100 years from now?
9. A fisheries manager determines that there are approximately 3000 bass in a lake. The population is growing at a rate of 2% per year. How many bass will live in the lake after 7 years?	10. A population of a certain species of bird in a state park has 300 birds. The population is decreasing at the rate of 7% year. Write the function. How many birds are in the population after 6 years?
11. A tennis tournament has 256 competitors. Half of the competitors are eliminated each round. Determine how many players will be left after 5 rounds.	12. A three-bedroom house in Bedrock was purchased for $190,000. If housing prices are expected to increase by 1.8% annually in that town, write a function that models the price of the house in t years, then find the price of the house in 6 years.