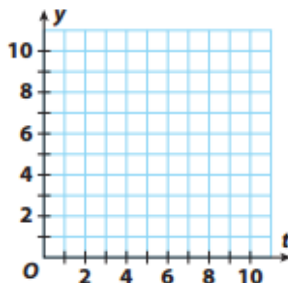
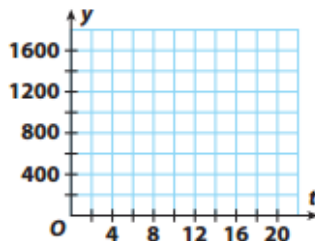


each function. Then find the value of the function after the given amount of time.

5. The amount (to the nearest hundredth) of a 10-mg dose of a certain antibiotic decreases in your bloodstream at a rate of 16% per hour; 4 hours.



6. The number of student-athletes at a local high school is 300 and is increasing at a rate of 8% per year; 5 years.



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Write an exponential growth or decay function to model each situation. Then find the value of the function after the given amount of time.

7. Annual sales for a company are \$149,000 and are increasing at a rate of 6% per year; 7 years. \_\_\_\_\_
8. The population of a town is 18,000 and is decreasing at a rate of 2% per year; 6 years. \_\_\_\_\_
9. The population of a small town is 1600 and is increasing at a rate of 3% per year; 10 years. \_\_\_\_\_
10. The value of a book is \$58 and decreases at a rate of 10% per year; 8 years. \_\_\_\_\_
11. A new savings account starts at \$700 and increases at 1.2% yearly; 7 years. \_\_\_\_\_
12. Mr. Nevin buys a car for \$18,500. The value of the car depreciates 9% per year; 7 years. \_\_\_\_\_
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