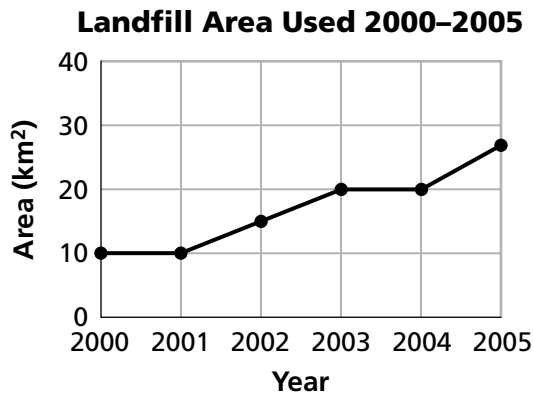


Additional Practice**Investigation 2****Variables and Patterns**

1. When the *Ocean Bike Tour* operators considered leasing a small bus for the summer season, they checked prices from two companies.
 - a. East Coast Transport (ECT) would charge \$1,000 plus \$2.50 per mile that their bus would be driven. Make a table showing the cost of leasing from ECT for 100, 200, 300, 400, 500, 600, 700, 800, 900, and 1,000 miles of driving.
 - b. Superior Buses would charge only \$5 per mile that their bus would be driven. Make a table showing the cost of leasing from Superior Buses for 100, 200, 300, 400, 500, 600, 700, 800, 900, and 1,000 miles of driving.
 - c. On one coordinate grid, plot the charge plans for both bus-leasing companies. Use different colors to mark each company's plan.
 - d. Why, if at all, does it make sense to connect the dots on your plots of part (c)?
 - e. Based on your work in parts (a)–(c), which lease option seems best? How is your answer supported by data in the tables and patterns in the graphs?

Additional Practice *(continued)***Investigation 2****Variables and Patterns**

2. a. A newspaper included the graph below in a story about the amount of city land used for trash between 2000 and 2005. The graph shows the relationship between two variables. What are they?



- b. What is the difference between the least and greatest amount of land used for trash?
- c. Between which two years did the area used for trash stay the same?
- d. On this graph, what information is given by the lines connecting the points? Is this information necessarily accurate? Explain your reasoning.
- e. In 2000, the total area available for trash was 120 square kilometers. Make a coordinate graph that shows the landfill area remaining in each year from 2000 to 2005.

Additional Practice *(continued)***Investigation 2****Variables and Patterns**

3. a. Make a coordinate graph of these data.

Roller Rink Fees

Minutes	Cost
30	\$3.50
60	\$7.00
90	\$10.50
120	\$14.00
150	\$17.50
180	\$21.00

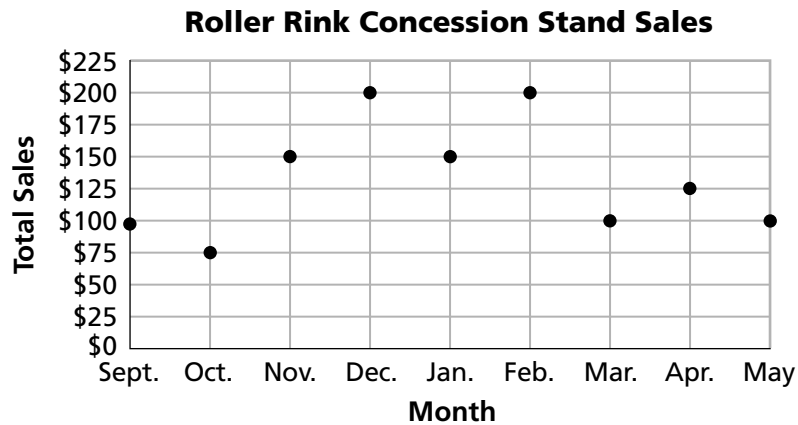
- b. Would it make sense to connect the points on your graph? Why or why not?
- c. Using the table, describe the pattern of change in the total skating fee as the number of minutes increases. How is this pattern shown in the graph?
4. a. A roller-blade supply store rents roller blades for \$2.50 per skater. Using increments of 5 skaters, make a table showing the total rental charge for 0 to 50 skaters. Make a coordinate graph of these data.
- b. Compare the pattern of change in your table and graph with the patterns you found in the skating fees in Exercise 3. Describe any similarities and differences.

Additional Practice *(continued)*

Investigation 2

Variables and Patterns

5. a. Use the graph to make a table of data showing the sales for each month.



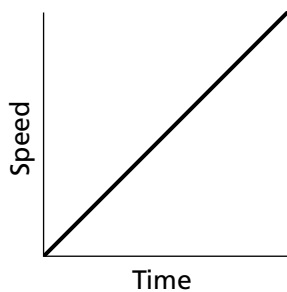
- b. The profit made by the concession stand is half of the sales. Make a table of data that shows the profit made by the concession stand for each month.

Additional Practice *(continued)***Investigation 2****Variables and Patterns**

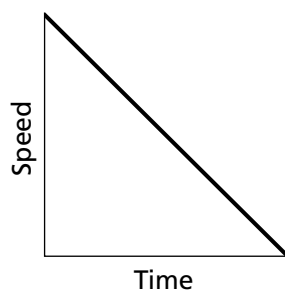
- c. Make a coordinate graph of the data from part (b). Use the same scale used in the sales graph above. Describe how the sales graph and the profit graph are similar and how they are different.

6. The three graphs below show the progress of a cyclist at different times during a ride. For each graph, describe the rider's progress over the time interval.

a.



b.



c.

