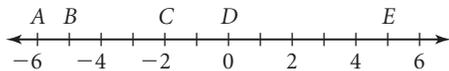


Lesson 7.3 • Graphs of Real-World Situations

Name _____ Period _____ Date _____

- For each relationship, identify the independent variable and the dependent variable. Then sketch a reasonable graph for each situation and label the axes. Write a few sentences explaining each graph. In your explanations, use terms such as *linear*, *nonlinear*, *continuous*, *discrete*, *increasing*, and *decreasing*.
 - The temperature of a carton of milk and the length of time it has been out of the refrigerator
 - The number of cars on the freeway and the level of exhaust fumes in the air
 - The temperature of a pot of water as it is heated
 - The relationship between the cooking time for a 2-pound roast and the temperature of the oven
 - The distance from a Ferris-wheel rider to the ground during two revolutions
- Sketch a graph of a continuous function to fit each description.
 - Linear and increasing, then linear and decreasing
 - Neither increasing nor decreasing
 - Increasing with a slower and slower rate of change
 - Decreasing with a slower and slower rate of change, then increasing with a faster and faster rate of change
 - Increasing with a slower and slower rate of change, then increasing with a faster and faster rate of change
- Write an inequality for each interval in 3a–f. Include the least point in each interval and exclude the greatest point in each interval.



- | | | |
|-----------|-----------|-----------|
| a. A to B | b. B to D | c. A to C |
| d. B to E | e. C to E | f. C to D |

- Describe each of these discrete function graphs using the words *increasing*, *decreasing*, *linear*, *nonlinear*, and *rate of change*.

