

CHAPTER
4 **Project**
Is That Your Foot?

Activity 1: Walk-a-thon *Use after Lesson 4-4*

By measuring how far you can walk in 1 minute, you can make predictions about how far you can walk in longer periods of time.

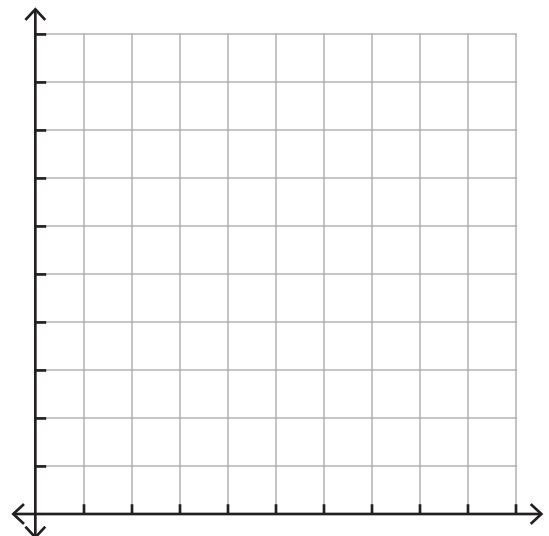
1. Use a stopwatch to time yourself as you walk for 1 minute. Walk comfortably without rushing. Measure the distance you walked in feet.

2. Multiply the distance by 60 to estimate how many feet you can walk in 1 hour. Then convert feet to miles to find your walking rate in miles per hour.

3. The function $y = rx$ describes the distance y in miles you can walk in x hours, where r is your rate in miles per hour. Rewrite this function using your rate from Problem 2.

4. Use the function to make a table of ordered pairs. Then graph the ordered pairs. Draw a line through the points to show all the ordered pairs that satisfy the function.

x	$y = rx$	(x, y)
1		
3		
5		
7		
9		



5. Use your graph to predict how far you could walk in an 8-hour walk-a-thon.

CHAPTER **Project**

4 **Is That Your Foot?** continued

Activity 2: Scene of the Crime Use after Lesson 4-5

Is there a correlation between a person's height and foot length? If so, you can use this correlation to predict a person's height when you know the length of his or her footprint.

1. Work with a partner. Measure the length of your foot in centimeters.

2. Measure your height in centimeters.

3. Collect data from your classmates to complete the table.

Height (cm)	Foot Length (cm)

Height (cm)	Foot Length (cm)

4. Graph a scatter plot of the data, and draw a trend line.

5. Describe the correlation illustrated by your scatter plot.

6. A set of footprints left at a crime scene measure 24 cm in length. Based on your scatter plot, estimate the height of the person who left the footprints. Explain how you determined your answer.

