



PRACTICE



TUTORIAL

Name: _____

4-3 Additional Practice

Scan for
Multimedia

- 1. Leveled Practice** The scatter plot shows Leanna's elevation above sea level during a hike. The trend line passes through the points (30, 1070) and (75, 1680). If Leanna starts at 663 feet above sea level and maintains the same rate, how far above sea level will she be after one hour?

The y-intercept is .The slope is = .

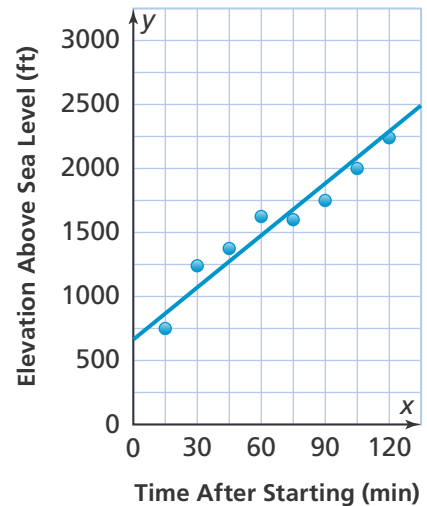
The equation for the trend line is

 $y = \text{}x + \text{}$.

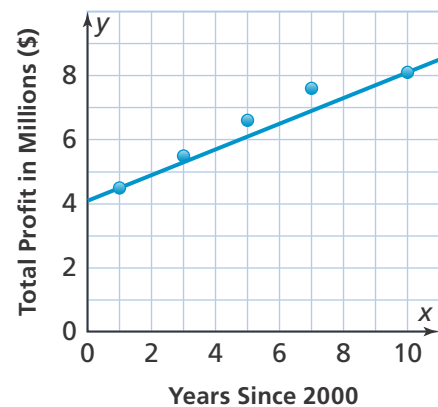
After one hour, her altitude will be

 () + =

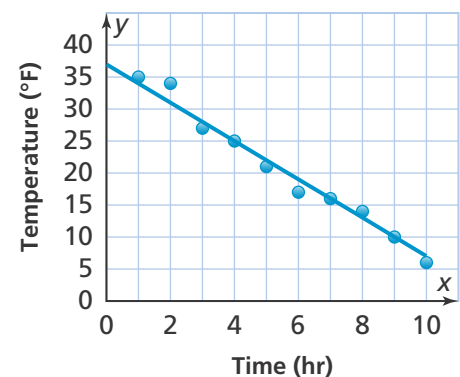
feet above sea level.

Elevation During Hike

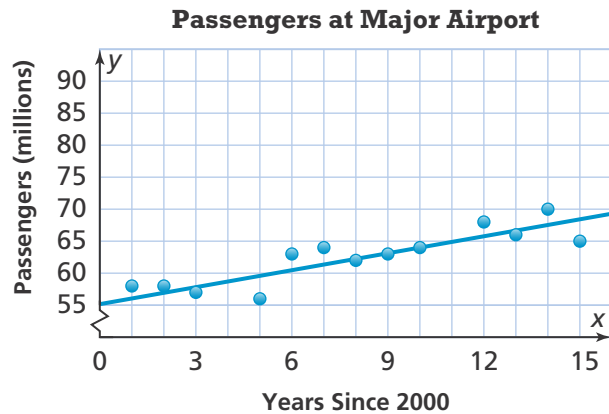
- 2. Make Sense and Persevere** The scatter plot shows the annual profit for one airline. The equation of the trend line shown is $y = 0.4x + 4.1$, where x represents the number of years since 2000 and y represents the revenue in millions of dollars. What was the approximate difference in revenue between 2003 and 2007? © MP.1

Airline Revenue

- 3.** An arctic cold front is moving through an area. It is 37° when the temperature begins to drop. The scatter plot suggests a linear relationship between the temperature and the number of hours since the cold front arrived.
- What does the rate of change, or slope, represent in this situation?
 - What is the y-intercept for the trend line and what does it represent?
 - What equation relates the change in temperature, y , to the number of hours after the cold front arrives, x ?

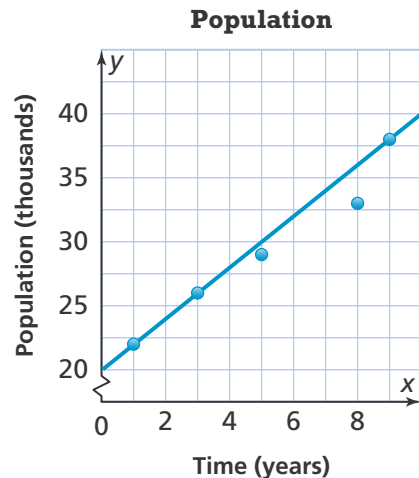
Temperature After Cold Front

4. The scatter plot shows the number of passengers at a major airport over a 15-year period from the year 2000. About how many passengers traveled through this airport in the year 2011? Round to the nearest tenth of a million.



5. **Higher Order Thinking** The graph shows the population of a certain city, y , over the course of 10 years, x . The equation of the trend line shown is $y = 1.9x + 21$.

- a. Use the equation of the trend line to predict the number of years it will take for the population to reach 52,900.
- b. In the tenth year, the population was actually 2,000 people from what the trend line shows. What could the actual number of people be in 10 years?



© Assessment Practice

The graph shows Maria's distance from her house during the first hour of her drive home from the beach. The trend line passes through the points (0, 94) and (30, 70).

6. Which of these is a trend line for the data set shown? Use x to represent the time in minutes and y to represent the distance driven in miles.
- Ⓐ $y = -\frac{4}{5}x - 94$ Ⓑ $x = -\frac{4}{5}y - 94$
- Ⓒ $y = -\frac{4}{5}x + 94$ Ⓓ $x = -\frac{4}{5}y + 94$
7. Predict the distance Maria is from her house when she has been driving for 45 minutes. Show your work.

