

Name _____

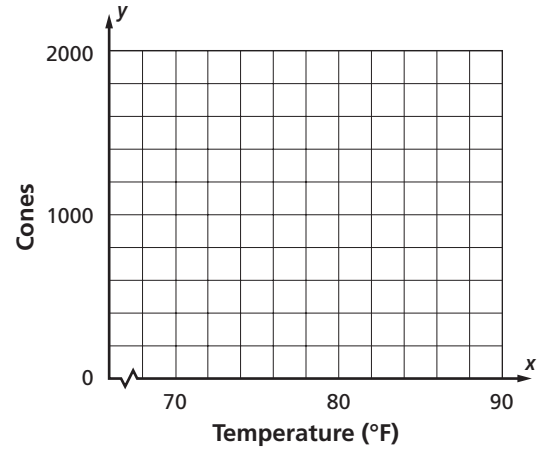
3-5A Lesson Master

Questions on SPUR Objectives
See Student Edition pages 215–219 for objectives.

USES Objective J

1. Jennifer and Barry run an ice cream shop. They gather data for a week about the number of cones they sell and the daily high temperature in order to better plan for sales, as shown at the right.

°F	Cones
84	1520
81	1375
87	1974
79	920
77	870
74	643
81	1497



- Graph the data at the right.
- Write the equation of a regression line for the data.

- Find the slope of the regression line and explain what it means in the context of the problem.

- How many cones does the equation predict that they will sell on a day with a high temperature of 85°F?

2. The table at the right shows the life expectancy and annual per capita (per person) income for ten countries in South America.

Country	Income	Life Expectancy
Argentina	\$13,000	76
Bolivia	\$4,400	66
Brazil	\$9,700	72
Chile	\$14,400	77
Colombia	\$7,200	72
Ecuador	\$7,100	77
Paraguay	\$4,000	75
Peru	\$7,600	70
Uruguay	\$10,700	76
Venezuela	\$12,800	73

- Graph the data below. Choose a good scale for the axes.

- Find a regression line for the data.

- Based on an income of \$7100, what does the regression equation predict for the life expectancy in Ecuador?

- How much does this differ from the actual value?

- Would you expect a country with a strong public health system to be above or below the regression line? Explain.

Source: <http://www.cia.gov/library/publications/the-world-factbook>

