

# 2-5 Practice

## Scatter Plots and Lines of Regression

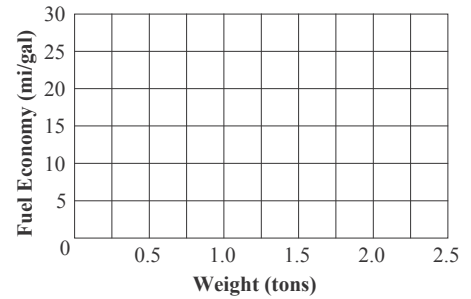
For Exercises 1 and 2, complete parts a–c.

- Make a scatter plot and a line of fit, and describe the correlation.
- Use two ordered pairs to write a prediction equation.
- Use your prediction equation to predict the missing value.

**1. FUEL ECONOMY** The table gives the weights in tons and estimates the fuel economy in miles per gallon for several cars.

Weight (tons)	1.3	1.4	1.5	1.8	2	2.1	2.4
Miles per Gallon	29	24	23	21	?	17	15

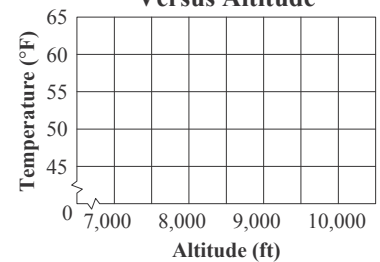
Fuel Economy Versus Weight



**2. ALTITUDE** As Anchara drives into the mountains, her car thermometer registers the temperatures ( F) shown in the table at the given altitudes (feet).

Altitude (ft)	7500	8200	8600	9200	9700	10,400	12,000
Temperature (°F)	61	58	56	53	50	46	?

Temperature Versus Altitude



**3. HEALTH** Alton has a treadmill that uses the time on the treadmill to estimate the number of Calories he burns during a workout. The table gives workout times and Calories burned for several workouts. Find an equation for and graph a line of regression. Then use the function to predict the number of Calories burned in a 60-minute workout.

Time (min)	18	24	30	40	42	48	52	60
Calories Burned	260	280	320	380	400	440	475	?

