

**Additional Practice****Investigation 1****Comparing and Scaling**

1. a. According to the table, how long is a typical person's lifetime? Explain your reasoning.

**Typical Person's Lifetime Activities**

Activity	Number of Years
Sleeping	24.5
At work or school	13.5
Socializing	4.5
Watching TV	12
Reading	3
Eating	3
Bathing and grooming	1.75
Talking on the telephone	1
Miscellaneous activities*	9.5

\* Such as housekeeping, shopping, waiting in lines, walking, driving, entertainment, and doing nothing

- b. Does a typical person spend more years watching TV or sleeping? Write a ratio that compares these two amounts.
- c. The number of years spent doing miscellaneous activities is about how many times the number of years spent socializing?
- d. What percent of the total number of years in a lifetime are spent sleeping? What percent are spent at work or school?
- e. About what fraction of a lifetime is spent watching TV and talking on the phone? What fraction is spent in miscellaneous activities?
- f. Make an interesting comparison statement about the data in the table. Tell why you think your comparison is interesting.

**Additional Practice** *(continued)***Investigation 1****Comparing and Scaling**

2. a. This table shows the typical weight of various parts of the body for an adult weighing 152 pounds. Estimate the percent of the total body weight for each part. Explain your reasoning.

Body Part	Weight (lb)
Head	10.5
Neck and Trunk	70.0
Arms	16.5
Hands	2
Legs	47.5
Feet	5.0

- b. Make a circle graph that shows the percent of the total body weight for each body part.
- c. The neck, trunk, and legs account for what total percent of the body weight?
3. a. Of the 756 students in Chad's middle school, 44% participate in sports, 29% play in the band, and 37% take the bus to school. How many students in Chad's middle school play in the band? Explain your reasoning.
- b. How many students in Chad's middle school take the bus to school?
- c. If you add up the percents of students who play sports, play in the band, and take the bus to school, you get 110%. Explain why the percents do not add to 100%.

**Additional Practice** *(continued)*

**Investigation 1**

**Comparing and Scaling**

4. a. Of the students in Ms. Yadav’s fourth-period math class, 16 are wearing athletic shoes, 10 are wearing boots, and 4 are wearing other kinds of shoes. What fraction of Ms. Yadav’s students are wearing boots? Explain.
- b. Suppose 1,006 students attend the middle school where Ms. Yadav teaches. Use your answer from part (a) to estimate the number of students who are wearing boots. Explain.
5. a. Use the table below. About what fraction of the total number of endangered species are found only in foreign countries?

**Numbers of Endangered Species**

	United States Only	United States and Foreign	Foreign Only
Animals	262	51	493
Plants	378	10	1
Total	640	61	494

- b. How many times more endangered plant species are there in the United States than in foreign countries? Explain your reasoning.
- c. About what percent of the total number of endangered animals lives only in the United States?
- d. What is the ratio of Endangered Plants to Endangered Animals in the United States only? In foreign countries only?
- e. What is the difference between the number of endangered animals in the United States and foreign countries and the number of endangered plants in the United States and foreign countries?