

NAME

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## Unit 4, Lesson 2: Ratios and Rates With Fractions

1. A cyclist rode 3.75 miles in 0.3 hours.

a. How fast was she going in miles per hour?

b. At that rate, how long will it take her to go 4.5 miles?

2. A recipe for sparkling grape juice calls for  $1\frac{1}{2}$  quarts of sparkling water and  $\frac{3}{4}$  quart of grape juice.

a. How much sparkling water would you need to mix with 9 quarts of grape juice?

b. How much grape juice would you need to mix with  $\frac{15}{4}$  quarts of sparkling water?

c. How much of each ingredient would you need to make 100 quarts of punch?

3. a. Draw a scaled copy of the circle using a scale factor of 2.

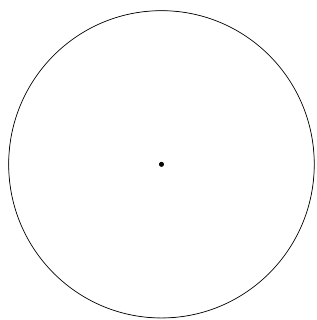
b. How does the circumference of the scaled copy compare to the circumference of the original circle?

c. How does the area of the scaled copy compare to the area of the original circle?

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(from Unit 3, Lesson 10)

4. At a deli counter,

- Someone bought  $1\frac{3}{4}$  pounds of ham for \$14.50.
- Someone bought  $2\frac{1}{2}$  pounds of turkey for \$26.25.
- Someone bought  $\frac{3}{8}$  pounds of roast beef for \$5.50.

Which meat is the least expensive per pound? Which meat is the most expensive per pound? Explain how you know.

5. Jada has a scale map of Kansas that fits on a page in her book. The page is 5 inches by 8 inches. Kansas is about 210 miles by 410 miles. Select **all** scales that could be a scale of the map. (There are 2.54 centimeters in an inch.)

- A. 1 in to 1 mi
- B. 1 cm to 1 km
- C. 1 in to 10 mi
- D. 1 ft to 100 mi
- E. 1 cm to 200 km
- F. 1 in to 100 mi
- G. 1 cm to 1000 km

(from Unit 1, Lesson 11)