

Lesson 4 Reteach

Ratio Tables

A **ratio table** organizes data into columns that are filled with pairs of numbers that have the same ratio, or are equivalent. **Equivalent ratios** express the same relationship between two quantities.

Example 1

BAKING You need 1 cup of rolled oats to make 24 oatmeal cookies. Use the ratio table below to find how many oatmeal cookies you can make with 5 cups of rolled oats.

Cups of Oats	1				5
Oatmeal Cookies	24				■

Find a pattern and extend it.

Cups of Oats	1	2	3	4	5
Oatmeal Cookies	24	48	72	96	120

$\xrightarrow{+1}$ $\xrightarrow{+1}$ $\xrightarrow{+1}$ $\xrightarrow{+1}$
 $\xleftarrow{+24}$ $\xleftarrow{+24}$ $\xleftarrow{+24}$ $\xleftarrow{+24}$

So, 120 oatmeal cookies can be made with 5 cups of rolled oats.

Multiplying or dividing two related quantities by the same number is called **scaling**. You may sometimes need to *scale back* and then *scale forward* or vice versa to find an equivalent ratio.

Example 2

SHOPPING A department store has socks on sale for 4 pairs for \$10. Use the ratio table at the right to find the cost of 6 pairs of socks.

There is no whole number by which you can multiply 4 to get 6. Instead, scale back to 2 and then forward to 6.

So, the cost of 6 pairs of socks would be \$15.

Pairs of Socks		4	6
Cost in Dollars		10	■

Pairs of Socks	2	4	6
Cost in Dollars	5	10	15

$\xrightarrow{\div 2}$ $\xrightarrow{\times 3}$
 $\xleftarrow{\div 2}$ $\xleftarrow{\times 3}$

Exercises

For Exercises 1–2, use the ratio tables given to solve each problem.

- EXERCISE** Keewan bikes 6 miles in 30 minutes. At this rate, how long would it take him to bike 18 miles?

Distance Biked (mi)	6		18
Time (min)	30		■

- HOBBIES** Christine is making fleece blankets. 6 yards of fleece will make 2 blankets. How many blankets can she make with 9 yards of fleece?

Yards of Fleece		6	9
Number of Blankets		2	■

Lesson 4 Skills Practice

Ratio Tables

Use the ratio table given to solve each problem.

1. **BAKING** A recipe for 1 apple pie calls for 6 cups of sliced apples. How many cups of sliced apples are needed to make 4 apple pies?

Number of Pies	1			4
Cups of Sliced Apples	6			■

2. **BASEBALL CARDS** Justin bought 40 packs of baseball cards for a discounted price of \$64. If he sells 10 packs of baseball cards to a friend at cost, how much should he charge?

Number of Baseball Card Packs	10			40
Cost in Dollars	■			64

3. **SOUP** A recipe that yields 12 cups of soup calls for 28 ounces of beef broth. How many ounces of beef broth do you need to make 18 cups of the soup?

Number of Cups		12	18
Ounces of Beef Broth		28	■

4. **ANIMALS** At a dog shelter, a 24-pound bag of dog food will feed 36 dogs a day. How many dogs would you expect to feed with a 16-pound bag of dog food?

Pounds of Dog Food	16	24	
Number of Dogs Fed	■	36	

5. **AUTOMOBILES** Mr. Fink's economy car can travel 420 miles on a 12-gallon tank of gas. Determine how many miles he can travel on 8 gallons.

Miles	420		■
Gallons	12		8