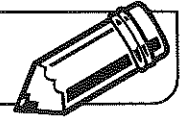


LESSON
12•4**Writing Ratios**

Some **ratios** compare part of a collection of things to the total number of things in the collection. The statement *6 out of 24 fifth graders have a pet* compares the number of fifth graders who have pets to the total number of fifth graders. This ratio can be expressed in several ways.

In *words*: For every 24 fifth graders, 6 have a pet. Six in 24 fifth graders have a pet. The ratio of fifth graders who have pets to the total number of fifth graders is 6 to 24.

With a *fraction*: $\frac{6}{24}$ of fifth graders have a pet.

A ratio is in simplest form if, when expressed as a fraction, the fraction is in simplest form. For example, the ratio *9 out of 36 fifth graders wear braces on his or her teeth* can be expressed in simplest form as $\frac{1}{4}$ of fifth graders wear braces.

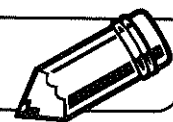
Express each ratio below with a fraction, using the simplest form.

1. Eighteen out of 24 fifth graders do not have a pet.

2. There are 18 water birds in the pond and 3 are swans.

3. Of the 54 tropical fish in the school aquarium, 27 are tiger fish.

4. For every 6 hot dogs sold at the ballpark, 4 are chili dogs.

LESSON
12•4**Ratios**

Solve the following ratio problems. Use the Square Tiles from *Math Journal 2*, Activity Sheet 7 to help you.

1. Place 20 tiles on your desk so that 3 out of 4 tiles are white and the rest are shaded.

How many tiles are white? _____

How many tiles are shaded? _____

2. Place 25 tiles on your desk so that 3 out of 5 tiles are white and the rest are shaded.

How many tiles are white? _____

How many tiles are shaded? _____

3. Place 4 white tiles on your desk. Add some tiles until 1 out of 5 tiles is white and the rest are shaded. How many tiles are there in all? _____

4. Place 9 white tiles on your desk. Add some tiles until 3 out of 8 tiles are white and the rest are shaded. How many tiles are there in all? _____

5. Imagine 28 tiles. If 4 out of 7 are white, how many are white? _____

6. Imagine 24 tiles. If 5 out of 6 are white, how many are white? _____

7. Place 18 tiles on your desk so that 6 are white and the rest are shaded.

One out of _____ tiles is white.

8. Place 30 tiles on your desk so that 20 are white and the rest are shaded.

Out of 3 tiles, _____ are white.

9. Make up a ratio number story for a partner to solve.

Answer: _____