

Lesson 1: Ratios

Classwork

Example 1

The coed soccer team has four times as many boys on it as it has girls. We say the ratio of the number of boys to the number of girls on the team is 4: 1. We read this as “four to one.”

Suppose the ratio of the number of boys to the number of girls on the team is 3: 2.

Example 2: Class Ratios

Record a ratio for each of the examples the teacher provides.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

Exercise 1

My own ratio compares _____ to _____.

My ratio is _____.

Exercise 2

Using words, describe a ratio that represents each ratio below.

a. 1 to 12 _____

b. 12:1 _____

c. 2 to 5 _____

d. 5 to 2 _____

e. 10:2 _____

f. 2:10 _____

Lesson Summary

A **ratio** is an ordered pair of non-negative numbers, which are not both zero.

The ratio is written $A:B$ or A to B to indicate the order of the numbers. The number A is first, and the number B is second.

The order of the numbers is important to the meaning of the ratio. Switching the numbers changes the relationship. The description of the ratio relationship tells us the correct order for the numbers in the ratio.

Problem Set

1. At the 6th grade school dance, there are 132 boys, 89 girls, and 14 adults.
 - a. Write the ratio of the number of boys to the number of girls.
 - b. Write the same ratio using another form ($A:B$ vs. A to B).
 - c. Write the ratio of the number of boys to the number of adults.
 - d. Write the same ratio using another form.
2. In the cafeteria, 100 milk cartons were put out for breakfast. At the end of breakfast, 27 remained.
 - a. What is the ratio of the number of milk cartons taken to total number of milk cartons?
 - b. What is the ratio of the number of milk cartons remaining to the number of milk cartons taken?
3. Choose a situation that could be described by the following ratios, and write a sentence to describe the ratio in the context of the situation you chose.
For example:
3:2. When making pink paint, the art teacher uses the ratio 3:2. For every 3 cups of white paint she uses in the mixture, she needs to use 2 cups of red paint.
 - a. 1 to 2
 - b. 29 to 30
 - c. 52:12