

## Lesson 1: Ratios

### Classwork

Record a ratio for each of the examples the teacher provides. (You have this in your notebook from the lesson.)

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 numbers, which are not both zero.

A ratio is denoted  $A:B$  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**

A T-shirt manufacturing company surveyed teenage girls on their favorite T-shirt color to guide the company’s decisions about how many of each color T-shirt they should design and manufacture. The results of the survey are shown here.

**Favorite T-Shirt Colors of Teenage Girls Surveyed**



**Exercises for Exploratory Challenge**

- Describe a ratio relationship, in the context of this survey, for which the ratio is 3: 5.
- For each ratio relationship given, fill in the ratio it is describing.

Description of the Ratio Relationship (Underline or highlight the words or phrases that indicate the description is a ratio.)	Ratio
For every 7 white T-shirts they manufacture, they should manufacture 4 yellow T-shirts. The ratio of the number of white T-shirts to the number of yellow T-shirts should be ...	
For every 4 yellow T-shirts they manufacture, they should manufacture 7 white T-shirts. The ratio of the number of yellow T-shirts to the number of white T-shirts should be ...	
The ratio of the number of girls who liked a white T-shirt best to the number of girls who liked a colored T-shirt best was ...	
For each red T-shirt they manufacture, they should manufacture 4 blue T-shirts. The ratio of the number of red T-shirts to the number of blue T-shirts should be ...	
They should purchase 4 bolts of yellow fabric for every 3 bolts of orange fabric. The ratio of the number of bolts of yellow fabric to the number of bolts of orange fabric should be ...	
The ratio of the number of girls who chose blue or green as their favorite to the number of girls who chose pink or red as their favorite was ...	
Three out of every 26 T-shirts they manufacture should be orange. The ratio of the number of orange T-shirts to the total number of T-shirts should be ...	