

Lesson 2: Ratios

Classwork

Exercise 1

Come up with two examples of ratio relationships that are interesting to you.

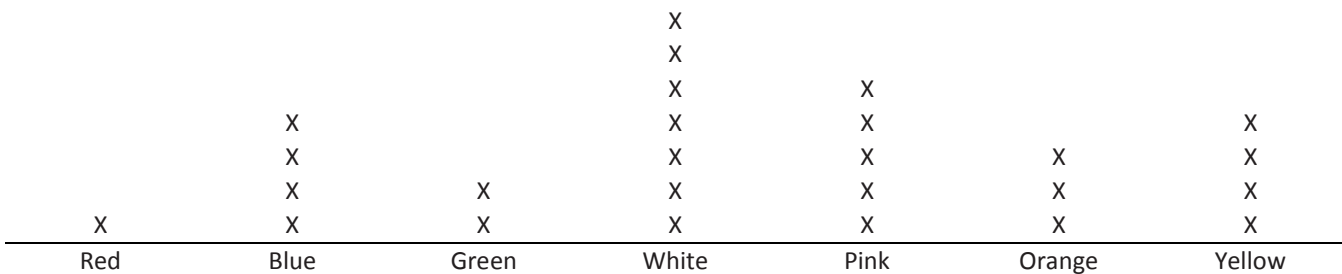
1.

2.

Exploratory Challenge

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	Ratio
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(Underline or highlight the words or phrases that indicate the description is a 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 ...	

3. For each ratio given, fill in a description of the ratio relationship it could describe, using the context of the survey.

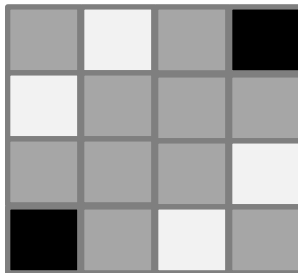
Description of the Ratio Relationship (Underline or highlight the words or phrases that indicate your example is a ratio.)	Ratio
	4 to 3
	3: 4
	19: 7
	7 to 26

Lesson Summary

- Ratios can be written in two ways: A to B or $A : B$.
- We describe ratio relationships with words, such as *to*, *for each*, *for every*.
- The ratio $A : B$ is not the same as the ratio $B : A$ (unless A is equal to B).

Problem Set

- Using the floor tiles design shown below, create 4 different ratios related to the image. Describe the ratio relationship, and write the ratio in the form $A : B$ or the form A to B .



- Billy wanted to write a ratio of the number of apples to the number of peppers in his refrigerator. He wrote 1 : 3. Did Billy write the ratio correctly? Explain your answer.

