NAME_____

Module 4 **Fractions, Decimals, Percents, and Factors**
Lesson 1 **Concepts of Fractions, Ratios, and Percents**

Challenge Problems 4.1

Set 1

1. Represent $\frac{2}{5}$ using two different models.

2. What is the ratio of teachers to students?

Students		Teacher
Boys	Girls	
12	13	Mr. King
15	11	Ms. Apple

Set 2

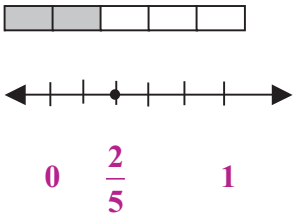
1. Explain how fractions, ratios, and percents are the same.

2. Explain how fractions, ratios, and percents are different.

Possible Answers

Set 1

1. Divide a rectangle into five equal parts. Shade two of the regions. Using a number line, divide the space between zero and one into five equal parts. Two parts to the right of zero is $\frac{2}{5}$.



2. 12 + 13 + 15 + 11 = 51
   51 students
   2:51

Set 2

1. Fractions, ratios, and percents name part of a whole. These can all represent the same number.

2. Fractions, ratios, and percents are written differently, such as $\frac{\square}{\square}$, "to," :, and %.

   Fractions and percents compare a part to a whole, while ratios can compare a part to another part. In a percent, a part is always being compared to one hundred.