

1.G.A.3 Lesson 1: Parts (equal shares) of Rectangles

Purpose: To determine the numbers of shaded parts, unshaded parts, and parts in a rectangle

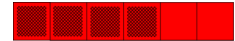
Materials: Fraction Bars, markers or chips, and "5-Bars" activity sheet (attached)

TEACHER MODELING/STUDENT COMMUNICATION

Activity 1 Teacher demonstrations of parts in a whole

Fraction
Bars
for
teacher

1. Select a red Fraction Bar with 4 parts shaded and show the class.



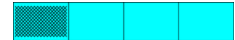
- This bar is divided into equal parts that all have the same size. Let's count the number of shaded parts together. (One, two, three, four) Point to each part as the class counts. How many parts of the bar are not shaded? (2) Point to these two parts.
- What is the total number of parts? (6) Point to each part as the class counts. Discuss the fact that some parts are shaded and some are not shaded, but there are 6 parts in all. Leave this bar and the bars below for students to see.

2. Select a red Fraction Bar with 2 parts shaded and show the class.



- How many parts of this Fraction Bar are shaded? (2) Point to these 2 parts. How many parts are not shaded? (4) What is the total number of parts? (6)

3. Select a blue Fraction Bar with 1 part shaded and show the class.

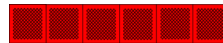


- How many parts of this Fraction Bar are shaded? (1) How many parts are not shaded? (3) What is the total number of parts? (4) Notice that this bar does not have much shading.

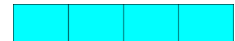
4. Select a blue Fraction Bar with 4 parts shaded and show the class.



- What do you notice about this Fraction Bar? (One answer is that 4 parts are shaded. Or, some students may say that all the parts are shaded.) When all the parts of a Fraction Bar are shaded, it is called a **whole bar**. The red bar with 6 parts shaded is another example of a whole bar. Show the class this bar. A whole bar has the most shading.



5. Select a blue Fraction Bar with 0 parts shaded and show the class.



- What do you notice about this Fraction Bar? (One answer is that it does not have any parts shaded.) Since this bar has 0 parts shaded, it is called a **zero bar**.
- What will a red Fraction Bar look like, if it is a zero bar? (It will have 6 parts and it will not have any shaded parts, or all the parts will be unshaded.) Show this bar.



Activity 2 Describing parts of Fraction Bars with whole numbers

Fraction Bars

1. Distribute a deck of Fraction Bars to each group. Ask each student to select any red bar.

➤ If you have a red Fraction Bar with 1 part shaded, hold it up.



➤ If you have a red Fraction Bar with 2 parts shaded hold it up.



Continue asking students if they have red Fraction Bars with 3, 4, and 5 shaded parts. Then ask the following questions.

➤ Does anyone have a red Fraction Bar with all 6 parts shaded? What is a bar with all its parts shaded called? (A whole bar).

➤ Does anyone have a red Fraction Bar with no parts shaded? What is a bar with no parts shaded called? (A zero bar).

2. Ask each student to select any Fraction Bar. Select volunteers to describe their bar.

➤ What is the color and number of shaded parts? Discuss that if a Fraction Bar has no shading, the number of its shaded parts is zero.

Connecting to Whole Numbers In describing a bar by giving its color (or the total number of parts) and the number of shaded parts, students will only need whole numbers. This is important in building a gradual transition from whole numbers to fractions. Even if students have seen fractions before, it is better at this point for the class not to use fractions.

Game: 5-Bars

Pass out a 5-Bars activity sheet to each student and a deck of Fraction Bars and markers to each group. Each student selects 5 bars of any color and places them on their activity sheet. This example has one bar of each color, but this is not necessary. The remaining bars should be placed aside and will not be used.

In this game, the teacher selects one Fraction Bar at a time and describes it by giving the color and number of shaded parts. For example,

➤ I have a yellow bar with two parts shaded. If you have this bar, place one marker or chip on the line beside your bar.

➤ The first player to place a marker beside each of their five Fraction Bars wins the game.

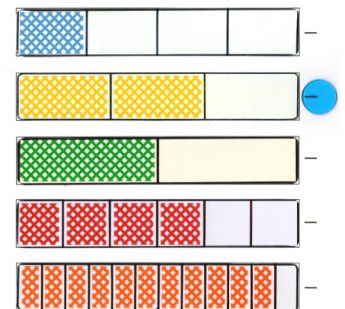
This game can be played again with the same bars on the sheets, or by giving students the option to place new bars on their sheet. Monitor student progress in the game and answer questions that may arise. Ask students to write their names on the activity sheets and collect the sheets for use in the next lesson.

Fraction Bars

5-Bars activity sheet and markers

Activity Sheet #1 Name: _____

5-Bars



INDEPENDENT PRACTICE and ASSESSMENT

Worksheets: #1A and #1B: Worksheet #1A can be done in class to help students with words and directions.

Name: _____

1.G.A.3 Activity Sheet #1

5-Bars

