

Algebra/Geometry Institute Summer 2005

Basic Sense

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School: Myrtle Hall IV Elementary, Clarksdale, and Ms 38614

Grade Level: 5th

1 Teaching objective(s)

Mississippi Framework: E: The student will model and perform basic operations with fractions.

2 Instructional Activities:

- The teacher will discuss and define the key components used when adding fractions with like denominators. Teacher will demonstrate how to use the denominator when adding using the following method. Fractions consist of two numbers. The top number is called the numerator. The bottom number is called the denominator.

Numerator Ex.: For this problem $\frac{5}{8} + \frac{1}{8} = \frac{6}{8}$

Denominator

- Teacher and students will reference everyday use of fractions in daily living; Example: using and reading fractions in various recipes when cooking, general mixing of various items used in the home and at work. Ex. Paint mixing, lawn sprays and pesticides, etc. Ask for more examples of real world application of using fractions.
- The teacher will use the chalkboard to model fractional parts of a whole using colored fraction strips, and writing the fraction addition problem. After the teacher has modeled a few, the students will create their own fractions to share with other students for modeling and adding on paper.

Orange is $\frac{1}{2}$ of the pizza.



Orange is also $\frac{1}{2}$ of this pizza.




Add both parts...

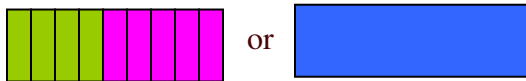


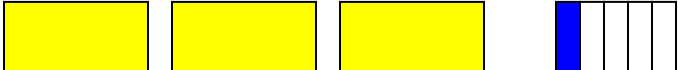
$$\frac{4}{10} + \frac{5}{10} = \frac{9}{10} = \frac{\text{green and orange parts}}{\text{total number of parts}}$$

- The teacher will provide students with several examples on adding like fractions. $\frac{2}{3} + \frac{1}{3} = \frac{3}{3}$ or 1 Whole, $\frac{4}{11} + \frac{4}{11} = \frac{8}{11}$
- Have students to divide into pairs. Students will use colored fraction strips to draw the fractions as modeled by teacher. Have student's model fractions by completing and drawing diagrams while the teacher monitors. Teacher will have students to explain the results from using the fraction strips, by demonstrating the answers on the chalkboard. Remind students that they may have to simplify some of the sums.

$$\circ \frac{1}{2} + \frac{1}{2} = \left[\begin{array}{|c|c|} \hline \text{dark green} & \text{white} \\ \hline \end{array} \right] + \left[\begin{array}{|c|c|} \hline \text{white} & \text{light green} \\ \hline \end{array} \right] = \frac{2}{2} =$$


$$\frac{4}{9} + \frac{5}{9} = \left[\begin{array}{|c|c|c|c|c|c|c|c|} \hline \text{green} & \text{green} & \text{green} & \text{green} & \text{white} & \text{white} & \text{white} & \text{white} \\ \hline \end{array} \right] + \left[\begin{array}{|c|c|c|c|c|c|c|c|} \hline \text{pink} & \text{pink} & \text{pink} & \text{pink} & \text{pink} & \text{white} & \text{white} & \text{white} \\ \hline \end{array} \right] = \frac{9}{9} = 1$$



$$2\frac{2}{5} + \frac{4}{5} = \left[\begin{array}{|c|c|} \hline \text{yellow} & \text{yellow} \\ \hline \end{array} \right] + \left[\begin{array}{|c|c|c|c|} \hline \text{red} & \text{red} & \text{white} & \text{white} \\ \hline \end{array} \right] + \left[\begin{array}{|c|c|c|c|} \hline \text{blue} & \text{blue} & \text{blue} & \text{white} \\ \hline \end{array} \right] = 3\frac{1}{5}$$


- Teacher will check for student understanding by reviewing the purpose of fractions and the steps for computing fractions with like denominators. Have students to share responses.

3 Materials and Resources:

Silver Burdett Ginn Mathematics Textbook

[http:// www.coastlink.com/users/sbryce/mathwork](http://www.coastlink.com/users/sbryce/mathwork)

Pencil

Paper

Activity Assessment Worksheet

Fraction Circles Strips (1 set per student)

4 Assessment:

- Assess student understanding through independent practice. Distribute the handout on adding fractions with like denominators. Inform students that they will work independently. Remind students to read the directions carefully. Teacher will monitor students as they work individually.
- Students will turn in worksheet for grading by the teacher after completing it.