

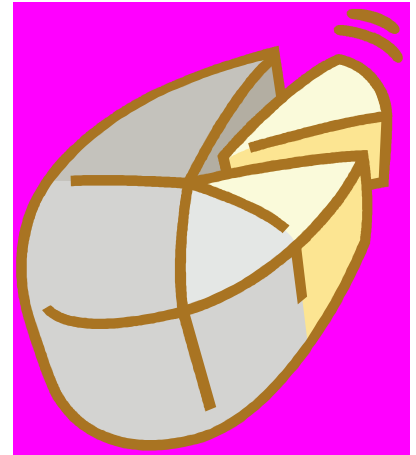
Algebra/Geometry Institute Summer 2008

Fraction Circles

Faculty Name: Julie Williams

School: Winona Elementary

Grade Level: 4th



- 1 Teaching objective(s)
The students will model and identify equivalent fractions, and compare fractions.

- 2 Instructional Activities
 - 1) Explain to the students that they are going to learn about whole and parts of a whole, and how to compare them.
 - 2) Pass out fraction circles to each student. The teacher will then use the overhead to show them what a whole is and how the circles are divided into parts using the overhead fraction circles.
 - 3) Tell the students to put their fraction circles into whole parts and show how each different part makes a whole ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$ etc.). Then, ask them how many pieces make a whole for each of the different parts.
 - 4) Compare $\frac{1}{2}$ to $\frac{1}{3}$. Show the fraction pieces on the overhead and ask the students which one they think is larger. Wait for them to demonstrate the fractions with their fraction pieces.
 - 5) Have a bucket with fractions written on pieces of paper in it (Attachment 1). Then, pull two fractions out of the bucket at a time and ask the students to compare them using their manipulatives.
 - 6) Once the students have gone over this a couple of times and the students understand how to compare the fractions, put them in groups of 4 or 5 depending on the class size. Group them in mixed ability groups.
 - 7) Give each group five different fractions (Attachment 1) to put in order from least to greatest. They will be encouraged to use their manipulatives, and to see if they can find the answer more than one way (drawings or fraction circles).
 - 8) After the groups have finished, let them demonstrate their answers on the overhead to the class.

- 3 Materials and Resources
 - * Overhead projector

- * Overhead markers
- * Overhead fraction circles
- * Circle Fraction sets for students
- * Attachments – List of fractions, and assessment
- * Container with fractions written on pieces of paper folded up ready to draw
- * Pencils and paper

Mathematics: The Path to Math Success. Silver Burdett Ginn. Parsippany, NJ. 2001.
Pgs. 332-338.

Grober, Keith. *Mississippi MCT2 Gold Edition Coach, Grade 4*. New York: Triumph Learning, 2008, Pgs. 52-58.

4 Assessment

- 1) As the students are comparing fractions using their manipulatives, walk around to make sure they understand what they are doing with the fraction pieces.
- 2) Check for understanding during the group presentations. See if they use the manipulatives correctly.
- 3) Give them a written assessment (Attachment 2) to do individually.

Attachment 1

Fractions

$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{5}$	$\frac{1}{6}$	$\frac{3}{6}$
$\frac{2}{4}$	$\frac{2}{5}$	$\frac{5}{8}$	$\frac{4}{5}$	$\frac{1}{3}$
$\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{10}$	$\frac{7}{8}$	$\frac{9}{12}$
$\frac{4}{12}$	$\frac{5}{6}$	$\frac{3}{5}$	$\frac{2}{3}$	$\frac{2}{10}$

Attachment 2

Name _____ Date _____

Draw the fractions using circle fractions.

1. $\frac{1}{2}$

2. $\frac{1}{4}$

Compare the fractions using greater than or less than. Bonus – Show drawings to support your answers.

3. $\frac{3}{8}$ _____ $\frac{6}{12}$

4. $\frac{2}{4}$ _____ $\frac{4}{6}$

5. $\frac{1}{6}$ _____ $\frac{1}{3}$

Put the following fractions in order from least to greatest. Support your answer with drawings.

6. $\frac{3}{10}$, $\frac{5}{12}$, $\frac{3}{4}$, $\frac{3}{6}$, and $\frac{3}{5}$.