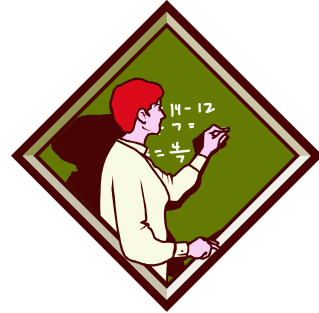


Algebra Geometry Institute summer 2007

Jordan Goins
Ray Brooks
5th Grade



EQUIVALENT FRACTIONS

TEACHING OBJECTIVE:

The student will be able to model equivalent fractions through the use of fraction models.

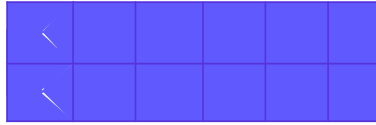
MATH CONCEPTS:

Finding Equivalent Fractions
Comparing Fractions



INSTRUCTIONAL ACTIVITIES:

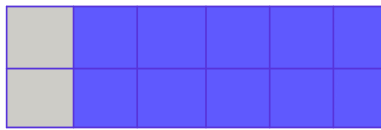
- ⇒ Explain to students that we will be discussing equivalent fractions today.
- ⇒ Tell students that equivalent fractions are fractions that represent the same part of a whole.
- ⇒ Tell students that we will learn new and more motivating ways to find equivalent fractions.
- ⇒ Ask each student to open the bag that's on their desk.
- ⇒ Tell everyone to get a Hershey candy bar.
- ⇒ Tell students to open the package without breaking the candy.
(Teacher will have extras if broken)
- ⇒ Tell student that a fraction contains two parts:
 - The denominator- the total number of equal parts.
 - The numerator- the total number of parts used.
- ⇒ Ask students what is the total number of parts of the candy bar? (12)



⇒ Tell student to eat or take away 2 pieces.

⇒ Ask student what fraction of the candy bar did we take away? $\frac{2}{12}$

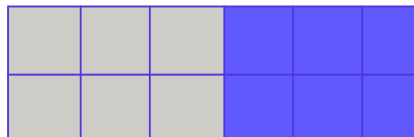
⇒ Ask student what fraction of the candy bar is left? $\frac{10}{12}$



⇒ Tell student to take $\frac{4}{12}$ of the remaining candy bar away.

⇒ Ask student what is the fraction of the pieces taken away from the entire candy bar? $\frac{6}{12}$ or $\frac{1}{2}$

⇒ Ask student what is the fraction of the pieces of the remaining candy bar? $\frac{6}{12}$ or $\frac{1}{2}$



⇒ Ask student what is another way to show $\frac{6}{12}$ as a fraction? $\frac{3}{6}$, $\frac{2}{4}$, or $\frac{1}{2}$

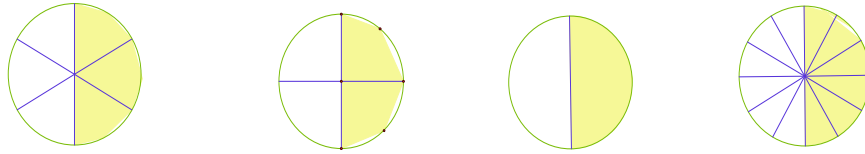
⇒ Tell student to explain their answers.

⇒ Explain to students that these fractions are called equivalent fractions.

⇒ Answer all questions by students clearly.

⇒ Have students to take the fraction pieces out of the bag that's on their desk.

⇒ Tell students to create a model that shows $\frac{3}{6}$, $\frac{2}{4}$, $\frac{1}{2}$, and $\frac{6}{12}$ are equal fractions.

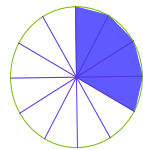


⇒ Have students explain their models.

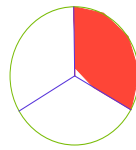
⇒ Clear all misunderstandings.

⇒ Have students to create a model to show a fraction that equals to $\frac{4}{12}$.

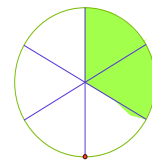
$$\frac{1}{3}, \frac{2}{6}$$



Equals



Equals



⇒ Explain to students how these are equivalent fractions even though the denominators are different.

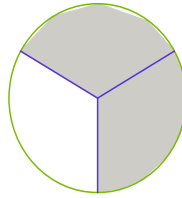
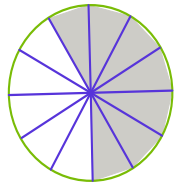
⇒ Give students two fractions, and have the students create models using the fraction pieces to show equivalent fractions for each of the fractions.

$$\frac{2}{3} \text{ and } \frac{10}{12}$$

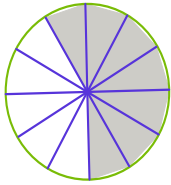
- Allow students time to model their equivalent fractions.
- Clear all misunderstandings of students.
- Ask students, How does one compare fractions with unlike denominators through the use of fraction models?
- Allow time for students to respond.
- Tell students when comparing fractions through the use of fraction models the largest fraction is the fraction model closer to a whole.
- Model an example.
- Example: Compare using $<$, $>$, or $=$

$$\frac{7}{12} \quad \bigcirc \quad \frac{2}{3}$$

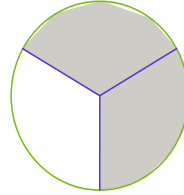
- Model with fraction models.



- Tell students to compare.
- Give students chance to respond.
- Tell students to compare the two fraction models closely.



Is less than



- Answer all questions given by students.
- Tell students we will now get into groups according to their grouping chart.
- Explain to students they will be finding equivalent fractions and comparing fractions through the use of fraction models.
- Have groups create and draw 4 different fractions to show their equivalent fractions.
- Have groups order three sets of fractions from least to greatest.

$$\frac{7}{10} \quad \frac{1}{10} \quad \frac{3}{10}$$

$$\frac{3}{4} \quad \frac{3}{5} \quad \frac{3}{10} \quad \frac{3}{12}$$

$$\frac{2}{3} \quad \frac{2}{5} \quad \frac{2}{7}$$

- Allow time for each group to finish.
- Have each group present their problems to the class with explanations.
- Ask students if they have any questions.
- Tell the students they all did a great job with today's lesson.

MATERIALS:

Pencil

Paper

Fractions pieces

Colored pencils
Grouping chart
Hershey candy bars

ASSESSMENT

The teacher will observe the students to assess their understanding of comparing and finding equivalent fractions.