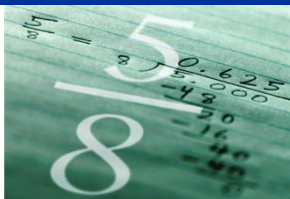


Grade 4 Unit 3

Equivalent Fractions



Volume 1 Issue 3

References

Helpful Links:

<http://www.visualfractions.com/>

<http://www.adaptedmind.com/p.php?tagId=892>

http://www.mathplayground.com/index_fractions.html

Math Grade 4

Textbook Connection:

Ch. 8, Lessons 8.3-8.7

Textbook Online:

<http://connected.mcgraw-hill.com/connected/login.do>

Student User ID:

ccsd(student ID)

Password: cobbmath1

Dear Parents,

Your student's math class is calling for students to be actively engaged in doing math in order to learn math. In the classroom, students will frequently work on tasks and activities to discover and apply mathematical thinking. Students will be expected to explain or justify their answers and to write clearly and properly. Your student will receive a consumable My Math textbook and online access from his or her teacher.

Concepts Students will Use and Understand

- Fractions can be represented visually and in written form.
- Fractions with differing parts can be the same size.
- Fractions of the same whole can be compared.
- Fractions with the same amount of pieces can be compared using the size of their pieces.
- Fractions can be compared using benchmarks like 0, $\frac{1}{2}$, and 1.
- Fraction relationships can be expressed using the symbols, $>$, $<$, or $=$.
- Use the four operations to solve multistep problems with whole numbers.

Vocabulary

Common fraction: a fraction in which the numerator and denominator are both integers and are separated by a horizontal or slanted line

denominator: the bottom number in a fraction; the denominator indicates the total number of equal parts that make up the whole

increment: the process of increasing in number, size, or quantity

numerator: the top number in a fraction; the numerator represents a number of equal parts within the whole

proper fraction: a fraction that is less than one, with the numerator less than the denominator

unit fraction: a fraction with a numerator of one

whole number: a number that has no fractional or decimal parts (1, 2, 3, etc.)

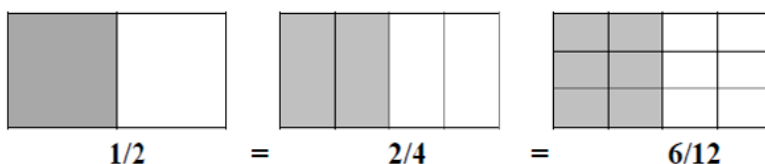
Symbols

$\frac{1}{2}$ - Fraction

$>$, $<$, $=$

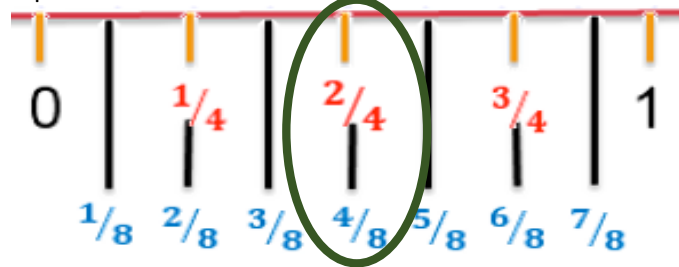
Example 1

Equivalent Fractions with Area Models



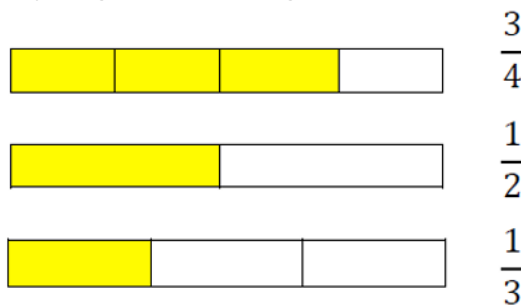
Example 2

Equivalent Fractions on a Number Line



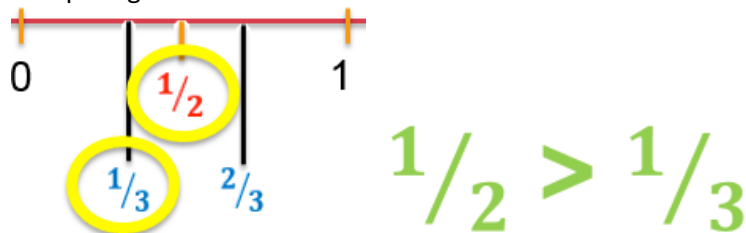
Example 3

Comparing Fractions Using the Benchmark Fraction of $\frac{1}{2}$



Example 4

Comparing Fractions on a Number Line



Example 5

Maria had 44 pencils. Six pencils fit into each of her pencil pouches. How many pouches did she fill? $44 \div 6 = p$; $p = 7 \text{ r } 2$. *Mary can fill 7 pouches completely.*

Activities to Complete at Home:

- Divide a large pile of objects (cereal, potato chips, toy animals, blocks, etc.) equally into 4 piles to illustrate one-fourth. Recombine the group to divide into other fractions.
- Get out the measuring cups and spoons! Let your child explore and experience one-half cup or one-third teaspoon. Point out the differences in the sizes of the wholes!
- Fold a piece of paper into halves, and then into halves again with your child. Open it up to show the division of fourths. Fold the paper again to show eighths.
- Count the rooms in your house and make some fraction facts about them. One-half of the rooms have windows. One-third of them have pillows.
- While in the car, mark the passing of time with fractions. "We are one-third of the way there." "It will take us 20 minutes to get to the library." "In how many minutes will we be half-way there?"