

Unit 3

Vocabulary & big ideas

Operations with

whole numbers,

fractions, &

decimals

Digit

Any number from 0-9

0, 1, 2, 3, 4, 5, 6, 7, 8, 9

Divisor

The number that divides a division problem.

$$12 \div 3 = 4$$

Dividend Divisor Quotient

$$\begin{array}{r} 6 \leftarrow \text{quotient} \\ 4 \overline{) 24} \leftarrow \text{dividend} \\ \uparrow \\ \text{divisor} \end{array}$$

Dividend

The number that is divided in a division problem.

(Longer word=usually bigger number)

Quotient

The answer to a division problem.

Remainder

The number left over after dividing a number that is not evenly divisible by the divisor.

$$32/6 = 5 \text{ R}2$$

The remainder is 2

Numerator

The number on top of a fraction.

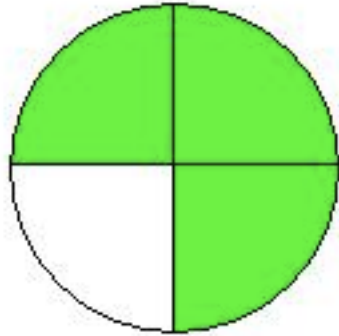
It shows the number of unit fractions the fraction represents.

Denominator

The number down below a fraction bar. It shows the number of unit fractions there are when divided into equal parts.

$\frac{3}{4}$ ← numerator (parts you are talking about)

4 ← denominator (equal parts in one whole or set)



Equivalent

Equal



1:2



2:4



4:8

Common Denominator

Fractions having the same denominator. You can find a common denominator by finding a common multiple.

Least Common Multiple (LCM)

The least number that is a multiple of two or more numbers.

Example: 36 is the least common multiple of 9 and 12.

(The smallest multiple they share)

Unit Fraction

A fraction with 1 in the numerator.

Example: $\frac{1}{8}$

Reciprocal

The product of a number and its reciprocal is 1. The reciprocal of the fraction a/b is b/a

$$\frac{2}{1} \times \frac{1}{2} = \frac{2}{2} = 1$$

$$\frac{6}{8} \text{ reciprocal is } \frac{8}{6}$$

Keep Change Flip

When dividing fractions, you will keep flip change.

Example:

$$\frac{1}{2} \div \frac{3}{4}$$



$$\frac{1}{2} \times \frac{4}{3} = \frac{4}{6} \text{ or } \frac{2}{3}$$



Keep the
first fraction

Change
the sign

Flip the
second
fraction

Inverse Operation

Operations that undo each other.

Addition and subtraction. Multiplication and
division.

Example:

$$5+9=14, \text{ so } 14-9=5$$

$$7*9=63, \text{ so } 63 \div 7=9$$

Simplify a fraction

Divide the numerator and denominator by a common factor to make an equivalent fraction in its lowest form.

$$\frac{5}{10} \text{ can be simplified by taking } \frac{5 \div 5}{10 \div 5} = \frac{1}{2}$$

Unsimpify

Rewrite a fraction as an equivalent fraction with a greater numerator and denominator.

Example:

Unsimpify $\frac{3}{5}$ by multiplying it by $\frac{6}{6}$

$$\text{So, } \frac{3}{5} \cdot \frac{6}{6} = \frac{18}{30}$$