**Fraction**

**Functions**

: Learning Fractions

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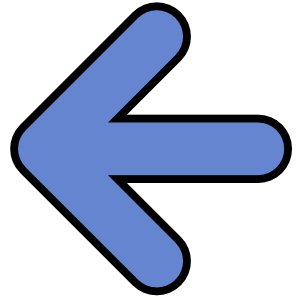
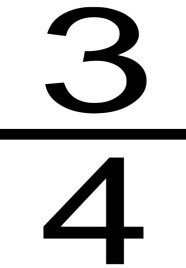
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: Basics of Fractions:

Numerators and Denominators;

Numerators and Denominators make up a fraction. The numerator is found on the top of the fraction, this is considered the ‘part’ of the fraction. The denominator is on the bottom of the fraction, this is considered the ‘whole’. The whole represents the total in the fraction. The part represents the number out of the total.

Example: whole

Part  

Reducing Fractions;

There are many different things you can do, and make with fractions. One includes reducing them. In almost every problem you will end up having to reduce your fraction. To do this procedure, you take your fraction and find a number that can easily be divided out of both the numerator and denominator. Your next step would be to make sure your fraction is at its lowest form by making sure that no other numbers can be divided into it.

Try out these reducing problems~

= \_\_\_ = \_\_\_

= \_\_\_ = \_\_\_

= \_\_\_ = \_\_\_

= \_\_\_ = \_\_\_

= \_\_\_ = \_\_\_

: Operations:

Adding and Subtracting;

When you have finally learned about a fraction the next step is to put your fractions into a problem. This could result in having to add or subtract fractions. To add a fraction you must find a common denominator (if needed) and then you can go on with your problem (to find how to make a common denominator, see the section “One Step Further” for directions).Then, you must add the numerators and the denominators stay the same. To subtract fractions you must do the same procedure, just with subtraction. [For info. On improper fractions/mixed numbers, look for section “One Step Further” for directions]

Try these addition problems~

+ =\_\_\_ + =\_\_\_ + =\_\_\_ + =\_\_\_ + =\_\_\_ + =\_\_\_ + =\_\_\_ + =\_\_\_ + =\_\_\_ + =\_\_\_

Subtraction problems

- =\_\_\_ - =\_\_\_ - =\_\_\_ - =\_\_\_ - =\_\_\_

- =\_\_\_ - =\_\_\_ - =\_\_\_ - =\_\_\_ - =\_\_\_

Reciprocals;

Reciprocals will help you divide fractions. It is a necessary use in using fractions. A reciprocal is when the denominator and numerator of a fraction are reversed. For example, reciprocal would be .

Try Out These Problems~

= \_\_\_ = \_\_\_ = \_\_\_ = \_\_\_ = \_\_\_

= \_\_\_ = \_\_\_ = \_\_\_ = \_\_\_ = \_\_\_

Multiplication and division;

Now that you got the basics down, two other operations that are used on fractions are multiplication and division. To do the procedure of multiplication, the first step would include multiplying the numerators and denominators in both fractions. To divide fractions you multiply your first fraction by the second fraction’s reciprocal and you will get your answer.

Try these multiplication problems~

x =\_\_\_ x =\_\_\_ x =\_\_\_ x =\_\_\_ x =\_\_\_ x =\_\_\_ x =\_\_\_ x =\_\_\_ x =\_\_\_ x =\_\_\_

Try These Division Problems~

=\_\_\_ =\_\_\_ =\_\_\_ =\_\_\_ =\_\_\_ =\_\_\_ =\_\_\_ = \_\_\_ =\_\_\_ =\_\_\_

: One Step Further:

Common Denominators;

When using the basic operations (addition, subtraction, multiplication, and division) on fractions, you will sometimes have to find common denominators. To do this, you must first take your problems denominators and find a number that can evenly be multiplied or divided into both denominators. Then you must take the number that you multiplied/ divided by, and do the same to the numerator. This will give you your answer. Also don’t forget that not all problems need a common denominator, they might already have one.

Mixed Numbers and Improper Fractions;

Mixed Numbers and Improper Fractions are occasionally used in the operations. Mixed numbers are numbers that are a whole number with a fraction; they represent a whole and a part of a whole together. Improper fractions are a fraction with a larger numerator and denominator; the numerator represents a whole number that is multiplied by the denominator. When making a mixed number into an improper fraction you must take the whole number, divide it by the denominator, and add it to the numerator, to make an improper fraction into a mixed number, it is vise-versa. In using addition with mixed numbers you must first find common denominators for the fractions. Next, you must add the fractions and then add the whole number separately.

Lastly you put your answers together and get your overall answer. When you subtract a mixed number and a fraction the first step is to subtract the fractions and then separately subtract the mixed numbers. Then you put your answers together and get your overall answer.

Lking Back;

World problems:

1. Timmy went trick or treating. He got 20 pieces of candy. Jen also went trick or treating and got 20 pieces of candy. They each ate 5 pieces from their pile. How many pieces of candy do they have left altogether?
2. Kip and Lafawndah bought 15 rap tapes out of the 30 they had. Napoleon bought 12 hip-hop tapes out of the 30 they had. How many more tapes did Kip and Lafawnda buy than Napoleon?
3. Brandon and Hudson went for pizza. They ate 5 out of 8 slices. Zoe and Maddie also went for pizza and ate 7 out of 8 slices. How many more slices did Zoe and Maddie eat than Brandon and Hudson?
4. Lea auditioned for 7 movies, she nailed 4 out of the 7. Cory auditioned for 7 movies also, he ended up nailing 2 out of the 7 auditions. How many movies did Lea and Cory get into altogether?
5. Jack went on the free fall 2 times. The free fall ended up breaking after 7 times. Right before it happened, Nancy went on it 3 times with Jack and once by herself. How many times did they go on altogether?
6. Harry had the fraction and Liam had .Multiply Harry’s amount by Liam’s.
7. Frank and Marvin had marbles. Danny and Louis had marbles. Multiply Frank and Marvin’s fraction by Danny and Louis’s fraction.
8. Rickie and Alisia bought of the boxes of chocolate and Tara bought boxes. Divide how many boxes Rickie and Alisia bought by how many boxes Tara bought.
9. William got of the pencils in a packet. Chloe got of a different pack of pencils. Divide how many Chloe got by how many William got.

Lillian had hair ties. Martha has. Multiply how many Lillian got by how many Martha got.

~glossary~

Basics:

: Numerators and Denominators

: Reducing Fractions

Operations:

: Adding and Subtracting

: Multiplying and Dividing

One Step Further:

: Common Denominators

: Mixed Numbers and Improper Fractions

Looking Back:

: Word Problems

This Math Textbook for fractions was made to supply students with basic knowledge of fractions. We hope you learn lots and enjoy this textbook. We hope you expand your knowledge with…….

**Fraction Functions**