|  |  |
| --- | --- |
| ***Addition and Subtraction of Fractions***  **Handout** | **Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |

**Objective: To practice adding and subtracting fractions.**

**Segment 1**: Definition of a fraction.

Everyday objects are often divided into sections. A cake is good example because it has to be cut into pieces to be served to guests.

The simple definition of a fraction is that it represents part of a whole unit. There are two important terms to know when studying fractions: numerator and denominator. In fractions the top number is counting, i.e. numerating; so it is called the numerator; and the bottom number is identifying the type of piece that is being counted, i.e. denominating, so it is called the denominator.

Special property of 1

The number 1 can be written as a fraction where the numerator and denominator are the same.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  | |  | |  | |  | |  | |  | |  | |  | | |  | | --- | |  | | |  | |  | |  | |  | |  | |  | |  | | --- | |  | | |  | |  | |  | |  | |  | |  | |  | |  | | |  | | --- | |  | | | |  | |  | |  |  |  |
| Whole | | | | |  | | 1 | |  | |  | |  |  |  | |  | |  | |  | |  | |  |  |  | |  | |  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  | |  | |
|  |  | |  | |  | |  | |  | |  | |  |  |  | |  | |  | |  | |  | |  |  |  | |  | |  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  | |  | |
|  |  | |  | |  | |  | |  | |  | |  |  |  | |  | |  | |  | |  | |  |  |  | |  | |  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  | |  | |
|  |  | |  | |  | |  | |  | |  | |  |  |  | |  | |  | |  | |  | |  |  |  | |  | |  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  | |  | |

The **lowest common denominator (LCD)** is the smallest integer that you can use to make the denominators the same. It is the smallest number both denominators divide into evenly.

**Segment 2**: Adding and subtracting fractions.

To add or subtract fractions, first rewrite each fraction as an equivalent fraction with a common denominator, using the least common multiple (LCM) of the denominators as the common denominator. Then add/subtract the numerators, and place it over the common denominator. Write the answer in simplest form.

Practice: Add or subtract.

1. (b)

(c) (d)

**Segment 3**: Add and subtract mixed numerals.

Mixed numbers are numbers that have two parts: a whole number and a fraction.

Adding mixed numbers is like adding whole numbers and fractions.

**To add mixed numbers:**

-Add the whole numbers.

-Write the fractions so they have a common denominator

-Add the fractions

Note: When you add mixed numerals, you may get an improper fraction which you can get rid of.

**To subtract mixed numbers:**

-Subtract the whole numbers

-Write the fractions so they have a common denominator

-Rewrite the smaller fraction if you are subtracting a larger fraction from a smaller one

-Then subtract

Practice: Add or subtract mixed numbers:

1. (b) (c)

**SELF-REFLECTION ACTIVITY**

- Which segment of the adding and subtracting fractions was most challenging for you?

- What steps are you going to take to learn this subject?