Math 9 Muscardin

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Chapter 1 – Number Operations**

Test Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

To do:

1.1 – Order of Operations Review

* Complete Notes ⃝

1.2 – Substitution

* Complete Notes ⃝
* Quiz ⃝

1.3 – Introduction to Fractions

* Complete Notes ⃝

1.4 – Adding and Subtracting Fractions

* Complete Notes ⃝

1.5 – Multiplying and Dividing Fractions

* Complete Notes ⃝

1.6 – Computations Involving Decimals

* Complete Notes ⃝
* Quiz ⃝

Chapter Assignment Handout ⃝

**Write Unit Test ⃝**

Math 9 **Lesson 1.1 – Order of Operations Review** Muscardin

A special order of operations is to be done when there are several operations needed to simplify an expression.

**B**

**E**

**D**

**M**

**A**

**S**

**Examples:**

1. 3.
2. 4.

Math 9 **Lesson 1.2 - Substitution** Muscardin

Substitution is the act of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ something with another thing.

In Mathematics we can replace variables or symbols within expressions with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in order to calculate and evaluate an outcome.

**Examples:**

1. if
2. if
3. if

Math 9 **Lesson 1.3 – Introduction to Fractions** Muscardin

A fraction is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and can be visually illustrated with diagrams. For example:

A fraction is made up of two parts: the top \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the bottom \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Fractions that have the same value are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ fractions.

Examples:

and

We can identify that pairs of fractions are equal to each other by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the fractions to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ through identifying a \_\_\_\_\_\_\_\_\_\_\_.

There are 3 types of fractions:

* Proper Fractions \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Improper Fractions \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Mixed Fractions \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

We can convert between improper fractions and mixed fractions.

**Improper to Mixed**

**Mixed to Improper**

Math 9 **Lesson 1.4 – Adding and Subtracting Fractions** Muscardin

In order to add or subtract fractions the denominators must be the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

When fractions are over the same denominator just add and/or subtract the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Examples:

When the denominators are not the same, re-write the fractions into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ fractions with the same denominator first, then add or subtract the numerators.

Examples:

Math 9 **Lesson 1.5 – Multiplying and Dividing Fractions** Muscardin

In order to find the product of fractions, find the product of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the product of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Final answers are reduced by dividing the top and the common by the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Examples:

When finding the product of mixed fractions, rewrite them as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ fractions first and then find the product.

Examples:

In order to divide fractions, you must multiply the first fraction by the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the second fraction.

The reciprocal of a number is a number that gives the product of \_\_\_\_\_\_.

Examples:

A common phrase to remember how to divide fractions is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Examples:

Math 9 **Lesson 1.6 – Computations Involving Decimals** Muscardin

Process for adding and subtracting decimals is

* Line up the decimal points vertically
* Find the sum or difference of digits in the same column, beginning at the right
* If necessary, carry (when adding) or borrow (when subtracting) using place values

**Examples:**

1. 2.

When multiplying decimals proceed as you would with whole numbers and then count off the same number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the answer as there are in the factors multiplied.

**Examples:**

1. 2.

When dividing a decimal by a whole number,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the decimal point in the quotient directly above the decimal point in the dividend.

If the divisor is not a\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, move the decimal point to the right to make it a whole number and move the decimal points in the dividend the same number of places.

Perform the division as you would whole numbers.

**Examples:**