



Name: _____

Date: _____

Mathematics Note Taking

Topic: Inverse Operation- Multiplication to Division (Vice Versa)

In mathematics, the word **inverse** refers to the **opposite** of another operation (equation).

Inverse means there is an inverse (opposite) relationship between division and multiplication which is just like there was between addition and subtraction.

Multiplication and division are **inverse operations**.

This means that they are **opposites**.

All multiplication sentences can be written as division sentences and vice versa.

Every **multiplication sentence** can be written as **TWO division sentences**.

For example:

1. The **division** equation $45 \div 5 = 9$ has the inverse relationships:

$$5 \times 9 = 45 \quad \text{or} \quad 9 \times 5 = 45$$

2. Similar relationships exist for **multiplication**.

The equation $3 \times 7 = 21$ has the inverse relationships

$$21 \div 3 = 7 \quad \text{or} \quad 21 \div 7 = 3$$

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