## Chapter 4 Math Vocab

## **Multiplication Properties:**

**Associative Property of Multiplication**- The property that states that the grouping of the factors does not change the product.

Example:  $3 \times (6 \times 2) = (3 \times 6) \times 2$ 

**Commutative Property of Multiplication** - The property that states that the order in which two numbers are multiplied does not change the product. Example:  $7 \times 2 = 2 \times 7$ 

**Distributive Property of Multiplication** - To multiply a sum by a number, you can multiply each addend by the same number and add the products.

Example:  $4 \times (1 + 3) = (4 \times 1) + (4 \times 3) = 16$ 

**Identity Property of Multiplication** - When any number is multiplied by 1, the product is that number

Example:  $7 \times 1 = 7$ 

Zero Property of Multiplication - When any number is multiplied by 0, the product is zero Example:  $45 \times 0 = 45$ 

## **Division Rules:**

**Zeroes in Division** - When you divide a 0 by any number other than 0, the quotient is 0. It is not possible to divide by 0.

Example:  $0 \div 3 = 0$ 

## Ones in Division -

- 1. When you divide any number by 1, the quotient is always the dividend. Example:  $3 \div 1 = 3$
- 2. When you divide a number by itself, the quotient is always 1. Example:  $5 \div 5 = 1$

Fact Family- a group of related facts using the same numbers.

Example:  $5 \times 3 = 15$ ,  $3 \times 5 = 15$ ,  $15 \div 5 = 3$ ,  $15 \div 3 = 5$ 

**Factor** - a number that divides into a whole number evenly. Also a number that is multiplied by another number.

Example: 1, 2, 3, and 6 are all factors of 6

**Multiple** - a multiple of a number is the product of that number and any whole number. Example: 15 is a multiple of 5 because  $3 \times 5 = 15$ 

Product - the answer to a multiplication problem

Quotient - the answer to a division problem