Chapter 4 – Multiplication Facts and Strategies &

Chapter 5 – Use of Multiplication Facts

Array - An arrangement of objects in rows and columns.

Example:

$3 \times 4 = 12$

Associative Property of Multiplication - The property that states that you can group addends in different ways and still get the same sum.

Example:

$4 + (2 + 5) = 11$ and
$(4 + 2) + 5 = 11$

Commutative Property of Multiplication - The property that states that you can multiply two factors in any order and get the same product.

Example:

$2 \times 4 = 8$
$4 \times 2 = 8$

Example:

$5 \times (10 + 6) = (5 \times 10) + (5 \times 6)$

Distributive Property of Multiplication - The property that states that multiplying a sum by a number is the same as multiplying each addend by the number and then adding the products.

Equation - A number sentence that uses the equal sign to show that two amounts are equal.

Examples:

$3 + 7 = 10$

$4 - 1 = 3$

$12 + n = 21$

Factor - A number that is multiplied by another number to find a product.

Examples:

$4 \times 7 = 28$

$$\begin{array}{r} 4 \\ \times\ 7 \\ \hline 28 \end{array}$$

The factors are 4 and 7.

Identity Property of Multiplication - The property that states that the product of any number and 1 is that number.

Example:

$5 \times 1 = 5$
$1 \times 8 = 8$

Multiple - A number that is the product of a given number and a whole number.

Example:

$$\begin{array}{cccc} 10 & 10 & 10 & 10 \\ \times 1 & \times 2 & \times 3 & \times 4 \\ \hline 10 & 20 & 30 & 40 \end{array} \leftarrow \text{multiples of 10}$$

Pattern - An ordered set of numbers or objects; the order helps you predict what will come next.

Examples:

2, 4, 6, 8, 10

Place value - The value of each digit in a number, based on the location of the digit.

Example:

	PLACE VALUE									
	Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
1,623,051→	1	6	2	3	0	5	1			
0.053→							0	0	5	3
32.4→						3	2	4		

Product - The answer in a multiplication problem.

Example:

$3 \times 8 = 24$

product