



Multiplication Table:

x	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Handy Pattern Rules:

Zero: Any number x 0 is 0
 One: Any number x 1 is that number
 Two: Any number x 2 will always be even
 Five: Skip count by 5s
 Ten: Any number x 10, put a 0 on its end

- EVEN x EVEN = EVEN
- EVEN x ODD = EVEN
- ODD x ODD = ODD

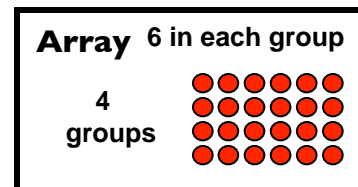
Multiplication Key Words	
Doubled	Times
Product of	Twice
Equal groups	Multiple
Each	Factor of

Terms in Multiplication:

The numbers that are multiplied together are called **FACTORS** and the result is called the **PRODUCT**. Together, **FACTORS** and **PRODUCTS** are called an **EQUATION**.

Factor Factor Product

$$4 \times 6 = 24 \rightarrow$$



Properties of Multiplication:

- **Commutative Property:** Multiplication is **Commutative** because changing the order of the numbers being multiplied together does not affect the product.

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

- **Associative Property:** Multiplication is **Associative**, because changing the grouping of factors being multiplied does not affect the product.

$$2 \times (3 \times 4) = (2 \times 3) \times 4$$

- **Distributive Property:** Multiplication is **Distributive**, because two numbers added together then multiplied by another number is the same as those same two numbers multiplied by another number one at a time, then added together.

$$4 \times (6 + 3) = (4 \times 6) + (4 \times 3)$$

- **Identity Property:** 1 x any number = that same number
- **Zero Property:** 0 x any number = 0

Unknown Numbers in Multiplication:

Unknown numbers can be written by a letter

$$2 \times n = 16 \qquad n = 8$$