COMMUTATIVE LAW of MULTIPLICATION

This means numbers can be multiplied in any order.

3 x 10 x 5 = 3 x 5 x 10

We can rearrange the order in which we multiply to make combinations that are easier to multiply.

Is it easier to solve 3 x 10 x 6 or is it easier to solve 3 x 6 x 10

30 x 8 = x 10 =

x x

50 x 8 = x 10

x x

4 x 60 =

6 x 70 =

8 x 70 =

5 x 70 =

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

23 x 7 =

(20+3) x 7

(____x ____) + (____ x____)

____ + ____

14 x 6 =

(10+4) x 6

(____ x ____) + (____x ____)

____ + ____

DISTRIBUTIVE LAW of MULTIPLICATION

Groups of the same number can be split into parts.

6 x 4

XXXX XXXX XXXX XXXX XXXX XXXX

3 x 4 + 3 x 4 = 6 x 4

(3 groups of 4) + (3 groups of 4) = 6 groups of 4

(6 groups of 4) is the same as (3 groups of 4) + (3 groups of 4)

3 groups of 4 + 3 groups of 4 = 6 groups of 4

so ..... 6 x 4 =

3 x 4 + 3 x 4

12 x 35

12 groups of 35 = (10 groups of 35) + (2 groups of 35)

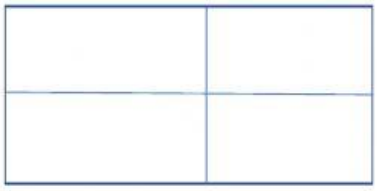
12 x 35 =

(10 + 2) x 35 = 10 x 35 + 2 x 35

= 350 + 70

Area Model 34 x 27 =

46 x 57 =



Half and Double to simplify

24 x 5 =	24 x 35 =
x 10 =	x 70 =
16 x 5 =	16 x 25 =
x 10 =	x 50 =
28 x 5 =	x 100 =
x 10 =	44 x 25 =
64 x 5 =	x 50 =
x 10 =	x 100 =