Multiply 3 Factors

When multiplying 3 factors, you can use the Associative Property of Multiplication. This property is called the grouping property because it allows you to change the grouping of factors without changing the product.

Find the product. Write another way to group the factors.

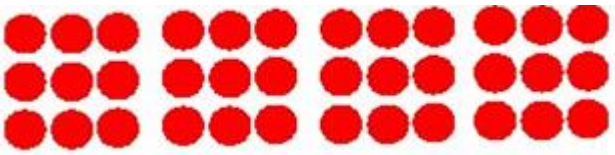
$\mathbf{4 \times (3 \times 3)}$

Start inside the parentheses.
Use counters to make 3 groups of 3.

There are a total of 9 counters.
The factors can be simplified.

$4 \times (3 \times 3)$ is the same as 4×9.

Use counters to make 4 groups of 9.



Count. There are 36 counters.

So, $4 \times (3 \times 3) = 36$, and $(4 \times 3) \times 3 = 36$.

Examples:

A- Find the product. Write another way to group the factors.

1) (5 x 2) x 2

Another way: 5 x (2 x 2)
Product: 20

2) 8 x (3 x 2)

Another way: (8 x 3) x 2
Product: 48

3) (1 x 3) x 2

Another way: 1 x (3 x 2)
Product: 6

4) (3 x 2) x 7

Another way: 3 x (2 x 7)
Product: 42

B- Use the parentheses. Find the product.

5) 3 x 1 x 9
(3 x 1) x 9 = 27

6) 1 x 3 x 5
(1 x 3) x 5 = 15

7) 4 x 2 x 6
(4 x 2) x 6 = 48

8) 2 x 3 x 6
(2 x 3) x 6 = 36

C- Find the missing factor.

9) (2 x 2) x 7 = 28

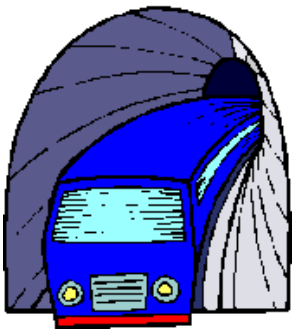
10) 6 x (5 x 1) =30

11) 9 x (3 x 2) = 54

12) 3 x (3 x 3) =27

My Real Life

The Metro has 8 rows. Each row has 4 seats. How many seats are on the Metro in all?



8 x 4 = 32 seats