



# MULTIPLICATION

## ASSOCIATIVE PROPERTY

When multiplying, changing the grouping of three or more factors does not change the product.

### EXAMPLE

Group  $3 \times 5 \times 10$  in different ways. Solve

$$\begin{array}{r} \Rightarrow 3 \times (5 \times 10) = (3 \times 5) \times 10 \\ \underbrace{3 \times 50}_{150} \qquad \qquad \underbrace{15 \times 10}_{150} \end{array}$$



# MULTIPLYING

## MULTIPLES of 10

We can use place value to solve multiples of 10 problems:

- 1 Write the multiples of 10 in place value form.
- 2 Find the product.

### EXAMPLE

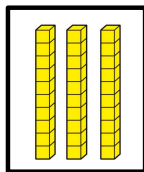
Find the product of  $2 \times 30$ .

#### STEP 1

$$2 \times 30 = 2 \times \underline{3} \text{ tens}$$



**2 x**

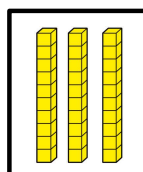


#### STEP 2

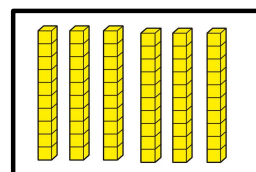
$$2 \times \underline{3} \text{ tens} = \underline{6} \text{ tens} = \mathbf{60}$$



**2 x**



**=**





# MULTIPLYING

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### EXAMPLE

Find the product of \_\_\_\_\_.

**STEP 1**

**STEP 2**