

Name: _____

Associative Property of Multiplication

The **Associative Property of Multiplication** states that the product of a set of numbers is the same, no matter how they are grouped.

Example:

$$\begin{array}{rcl} (2 \times 3) \times 4 & = & 4 \times (3 \times 2) \\ 6 \times 4 & = & 4 \times 6 \\ 24 & = & 24 \end{array}$$

Part 1: Tell whether the products of the sets of numbers are equal or not equal. Write an "equals sign" (=) on the line if the sets have equal products. Write a "not equals sign" (\neq) if the sets have unequal products.

- a. $(3 \times 4) \times 2$ _____ $3 \times (4 \times 2)$
- b. $(2 \times 2) \times 3$ _____ $2 \times (3 \times 3)$
- c. $12 \times (6 \times 0)$ _____ $(12 \times 6) \times 0$
- d. $(4 \times 1) \times 7$ _____ $4 \times (3 \times 7)$

Part 2: Find the product of the numbers on the left of the "equals sign" (=) and the product of the numbers on the right. Write your answers on the lines below each problem.

- e. $(2 \times 6) \times 2$ = $2 \times (6 \times 2)$

- f. $(2 \times 5) \times 2$ = $2 \times (5 \times 2)$

- g. $(4 \times 7) \times 1$ = $4 \times (7 \times 1)$

- h. $(3 \times 3) \times 4$ = $3 \times (3 \times 4)$
