

Name \_\_\_\_\_

## Group, Solve, Compare

### 1. Compute both sides (Addition)

a)  $(9 + 3) + 2 =$  \_\_\_\_\_  $9 + (3 + 2) =$  \_\_\_\_\_ Do they match? \_\_\_\_\_

b)  $(6 + 4) + 8 =$  \_\_\_\_\_  $6 + (4 + 8) =$  \_\_\_\_\_ Do they match? \_\_\_\_\_

### 2. Compute both sides (Multiplication)

a)  $(3 \times 2) \times 5 =$  \_\_\_\_\_  $3 \times (2 \times 5) =$  \_\_\_\_\_ Do they match? \_\_\_\_\_

b)  $(4 \times 6) \times 2 =$  \_\_\_\_\_  $4 \times (6 \times 2) =$  \_\_\_\_\_ Do they match? \_\_\_\_\_

### 3. Fill in the missing number

a)  $(5 + 7) + \underline{\hspace{1cm}} = 5 + (7 + 2)$  Answer: \_\_\_\_\_

b)  $(2 \times 4) \times \underline{\hspace{1cm}} = 2 \times (4 \times 3)$  Answer: \_\_\_\_\_

c)  $(8 + 6) + 9 = 8 + (\underline{\hspace{1cm}} + 9)$  Answer: \_\_\_\_\_



### 4. Fill in the missing parentheses to show the associative property.

a)  $2 + 3 + 5 =$  \_\_\_\_\_

b)  $4 \times 7 \times 2 =$  \_\_\_\_\_

c)  $9 + 1 + 8 =$  \_\_\_\_\_

(Students must add parentheses in two different groupings that both work.)

**5. Word Problem** - Maya has 5 boxes with 3 bags each, and each bag has 2 apples. Show two different ways to group and find the total number of apples.

Way 1:  $(5 \times 3) \times 2 =$  \_\_\_\_\_ Way 2:  $5 \times (3 \times 2) =$  \_\_\_\_\_

Do both ways give the same result? \_\_\_\_\_

Explain why: \_\_\_\_\_