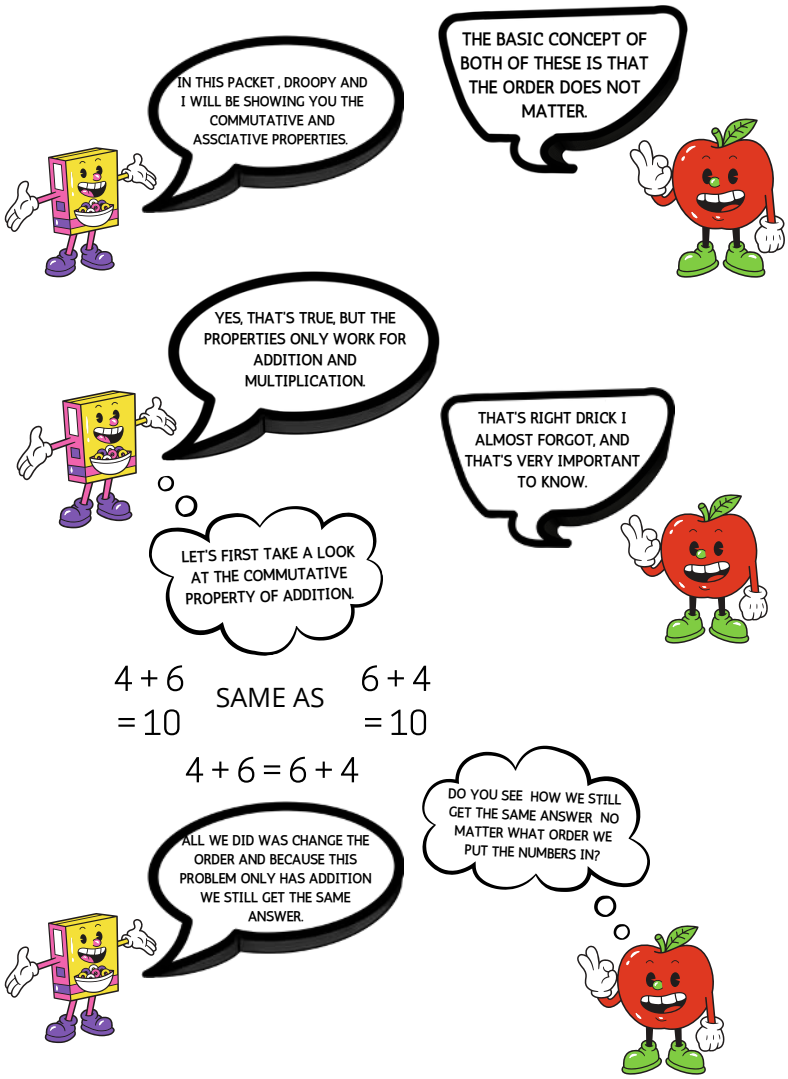
COMMUTATIVE PROPERTY OF ADDITION



CHANGE THE ORDER AND SOLVE (SHOW YOUR WORK)

CHANGE THE ORDER

EXAMPLE

$4 + 9 + 6$

$4 + 6 + 9$

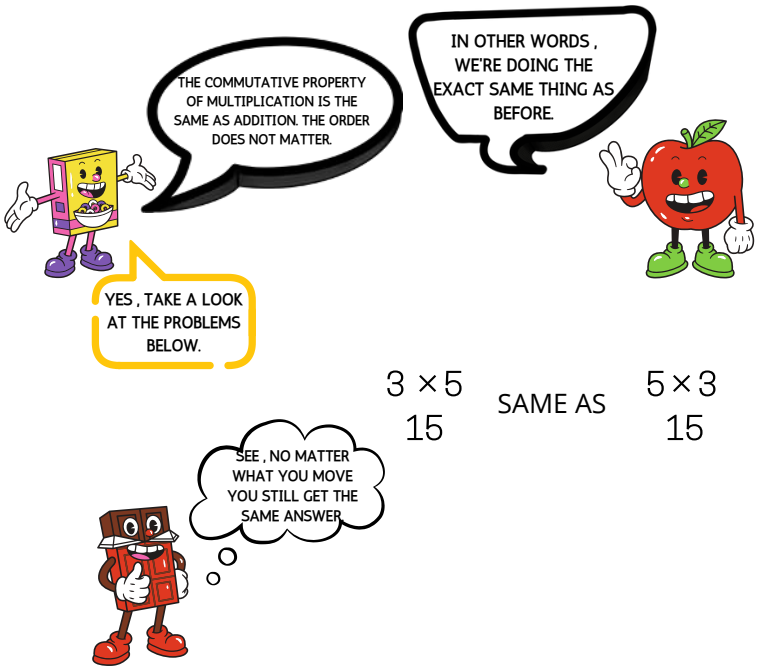
$10 + 9$

19

NOW ITS EASIER TO SOLVE

1. $12 + 5 + 8$
2. $16 + 28 + 52$
3. $10 + 6 + 2$
4. $28 + 60 + 15$
5. $22 + 18 + 4$
6. $90 + 21 + 1$
7. $16 + 5 + 20$
8. $39 + 7 + 2$
9. $40 + 26 + 8$
10. $7 + 5 + 2$

COMMUTATIVE PROPERTY OF MULTIPLICATION



CHANGE THE ORDER AND SOLVE (SHOW YOUR WORK)

CHANGE THE ORDER

EXAMPLE

$2 \times 8 \times 15$

$2 \times 15 \times 8$

30×8

240

NOW ITS EASIER TO SOLVE

1. $42 \times 16 \times 2$
2. $20 \times 31 \times 4$
3. $42 \times 10 \times 6$
4. $20 \times 18 \times 9$
5. $50 \times 11 \times 5$
6. $90 \times 15 \times 4$
7. $70 \times 26 \times 12$
8. $25 \times 22 \times 10$
9. $5 \times 8 \times 7$
10. $6 \times 18 \times 15$

SUBTRACTION

$5 - 2 = 3$ NOT SAME $2 - 5 = -3$

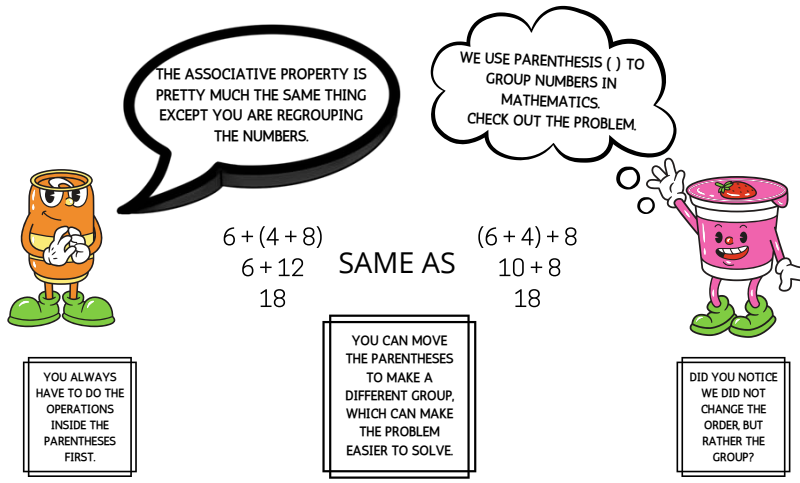
WHEN YOU SWITCH THE ORDER THE ANSWERS ARE NOT THE SAME.

DIVISION

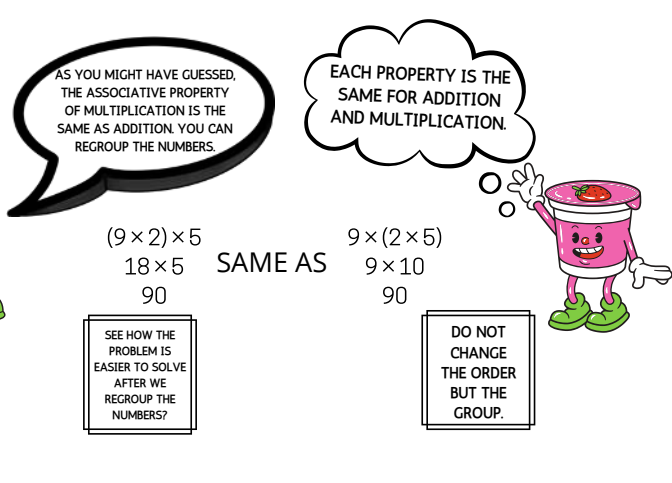
$6 \div 3 = 2$ NOT SAME $3 \div 6 = 1/2$

BEFORE WE MOVE ON TO THE ASSOCIATIVE PROPERTY CHECK OUT THESE TWO EXAMPLES. THEY SHOW THAT THE COMMUTATIVE PROPERTY DOES NOT WORK FOR SUBTRACTION OR DIVISION.

ASSOCIATIVE PROPERTY OF ADDITION



ASSOCIATIVE PROPERTY OF MULTIPLICATION



REGROUP AND SOLVE (SHOW YOUR WORK)

EXAMPLE
(13 + 8) + 2
13 + (8 + 2)
13 + 10
23

REWRITE THE PARENTHESES TO MAKE THE PROBLEM EASIER.

1. $(21 + 8) + 6$
2. $16 + (20 + 4)$
3. $42 + (11 + 2)$
4. $(22 + 15) + 10$
5. $40 + (4 + 16)$
6. $7 + (16 + 18)$
7. $(10 + 23) + 6$
8. $25 + (18 + 4)$
9. $(17 + 9) + 10$
10. $5 + (16 + 9)$

REGROUP AND SOLVE (SHOW YOUR WORK)

EXAMPLE
2 × (5 × 14)
(2 × 5) × 14
10 × 14
140

REWRITE THE PARENTHESES TO MAKE THE PROBLEM EASIER.

1. $(14 \times 12) \times 2$
2. $20 \times (3 \times 10)$
3. $(16 \times 4) \times 15$
4. $25 \times (12 \times 16)$
5. $14 \times (13 \times 2)$
6. $(16 \times 4) \times 5$
7. $(30 \times 7) \times 5$
8. $10 \times (6 \times 11)$
9. $22 \times (16 \times 18)$
10. $10 \times (2 \times 6)$

CHANGE THE ORDER , GROUP , AND SOLVE(SHOW YOUR WORK)

EXAMPLE

CHANGE THE ORDER

5 + 8 + 5 + 2
5 + 5 + 8 + 2
(5 + 5) + (8 + 2)
10 + 10
20

GROUP THE NUMBERS.

1. $6 + 2 + 5 + 8$
2. $16 + 8 + 6 + 2$
3. $20 + 2 + 17 + 7$
4. $10 + 2 + 5 + 3$
5. $27 + 22 + 11 + 4$
6. $15 + 14 + 12 + 2$

CHANGE THE ORDER , GROUP , AND SOLVE(SHOW YOUR WORK)

EXAMPLE

CHANGE THE ORDER

5 × 25 × 2 × 4
5 × 2 × 25 × 4
(5 × 2) × (25 × 4)
10 × 100
1000

GROUP THE NUMBERS.

1. $10 \times 4 \times 12 \times 20$
2. $2 \times 15 \times 18 \times 60$
3. $50 \times 5 \times 4 \times 10$
4. $7 \times 8 \times 2 \times 11$
5. $16 \times 30 \times 4 \times 3$
6. $25 \times 15 \times 10 \times 5$