Suma

1) Conmutativa = $a+b=c$
$b+a=c$

2) Asociativa = $(2+3)+4 = 2+(3+4)$
$5+4 = 2+7$
$9 = 9$

3) Elemento neutro = $a+b=a$
$2+0=2$

4) Distributiva = $2\times(2+3)$
$4+6$
10

25

15 10

Resta

1) No conmutativa
2) No asociativa

① $\dfrac{2-3}{3-2} = \dfrac{-1}{1}$

② $\dfrac{10}{-5}$ ⟶ $\overline{5}$ Minuendo
sustraendo
residuo

Multiplicación

Conmutativa

$5\times2=10$
$2\times5=10$

Asociativa

$2\times(2\times3) = (2\times2)\times3$
$2\times6 = 4\times3$
$12 = 12$

No cumple la distributiva

1) Aplica la propiedad distributiva y resuelve

$5 \times (3+5) = 5 \times 3 + 5 \times 5 = 15 + 25 = 40$

$7 \times (8+9) = 7 \times 8 + 7 \times 9 = 56 + 63 = 119$

$9 \times (8-5) = 9 \times 8 - 9 \times 5 = 72 - 45 = 27$

2) realiza las operaciones con lo siguiente

① $8 \times (9+8)$ ② $7 \times (6+5)$ ③ $6 \times (8-3)$ ④ $10 \times (7--2)$

⑤ $56 \times (8-5)$ ⑥ $120 \times (2-1)$ ⑦ $89 \times (5+6)$ ⑧ $25 \times (8-20)$

① __3__ $(6 \times 8) - (6 \times 3) = 30$

② __1__ $(8 \times 9) + (8 \times 8) = 136$

③ __2__ $(7 \times 6) + (7 \times 5) = 77$

④ __4__ $(10 \times 7) - (10 \times 2) = 50$

⑤ __8__ $(25 \times 8) + (25 \times 20) = -300$

⑥ __5__ $(56 \times 8) - (56 \times 5) = 168$

⑦ __7__ $(89 \times 5) + (89 \times 6) = 979$

⑧ __6__ $(120 \times 2) - (120 \times 1) = 120$

Propiedad conmutativa y asociativa

① Aplica la propiedad conmutativa

$$5 \times 4 = 4 \times 5$$
$$20 = 20$$

$$4 \times 7 = 7 \times 4$$
$$28 = 28$$

$$3 \times 9 = 9 \times 3$$
$$27 = 27$$

$$6 \times 5 = 5 \times 6$$
$$30 = 30$$

$$7 \times 2 = 2 \times 7$$
$$14 = 14$$

$$9 \times 8 = 8 \times 9$$
$$72 = 72$$

② Aplica la propiedad asociativa

$$4 \times 5 \times 3 = 5 \times 4 \times 3 = 60$$

$$2 \times 8 \times 6 = 6 \times 2 \times 8 = 96$$

$$7 \times 9 \times 2 = 2 \times 9 \times 7 = 126$$

$$3 \times 8 \times 2 = 8 \times 3 \times 2 = 48$$

$$6 \times 4 \times 5 = 5 \times 4 \times 6 = 120$$