

Multiplicación = Producto

$$\underbrace{a + a + a + \dots + a}_{n \text{ veces}} = a \times n = \underbrace{a}_{\downarrow \text{Factores}} \cdot \underbrace{n}_{\downarrow \text{Factores}}$$

$$\underbrace{4 + 4 + 4 + 4 + 4}_{5 \text{ veces}} = 4 \cdot 5 = \underline{20}$$

→ Propiedades

Commutativa: $a \cdot b = b \cdot a$
 $4 \cdot 5 = 5 \cdot 4 = 20$

Asociativa: $(a \cdot b) \cdot c = a \cdot (b \cdot c)$

$$\begin{cases} (3 \cdot 2) \cdot 4 = 6 \cdot 4 = 24 \checkmark \\ 3 \cdot (2 \cdot 4) = 3 \cdot 8 = 24 \checkmark \end{cases}$$

Elemento neutro, 1: $a \cdot 1 = 1 \cdot a = a$

$$3 \cdot 1 = 3$$

Elemento absorbente, 0: $a \cdot 0 = 0 \cdot a = 0$

Propiedad distributiva:

$$\begin{cases} a \cdot (b + c) = a \cdot b + a \cdot c \\ a \cdot (b - c) = a \cdot b - a \cdot c \end{cases}$$

Jerarquía

$$2 \cdot (4 + 5) = \begin{cases} \text{Jerarquía} \\ 2 \cdot 9 = 18 \checkmark \\ \text{Prop. dist} \end{cases}$$

$$2 \cdot 4 + 2 \cdot 5 = 8 + 10 = 18 \checkmark$$

$$3 \cdot (5 - 2 + 1) = 3 \cdot 5 - 3 \cdot 2 + 3 \cdot 1 = 15 - 6 + 3 = 12$$

$$3^{\circ}) \quad a) \quad 3 \cdot (4+2) = \begin{cases} 3 \cdot 6 = 18 \checkmark \\ 3 \cdot 4 + 3 \cdot 2 = 12 + 6 = 18 \checkmark \end{cases}$$

$$e) \quad (3+5) \cdot 2 = \begin{cases} 8 \cdot 2 = 16 \\ 2 \cdot 5 + 2 \cdot 3 = 10 + 6 = 16. \end{cases}$$

$$b) \quad 6 \cdot (3+4) = \begin{cases} 6 \cdot 7 = 42 \checkmark \\ 6 \cdot 3 + 6 \cdot 4 = 18 + 24 = 42 \checkmark \end{cases}$$

$$f) \quad 0 \cdot (5-1) = \begin{cases} 0 \cdot 5 - 0 \cdot 1 = 0 - 0 = 0 \\ 0 \cdot 4 = 0 \end{cases}$$

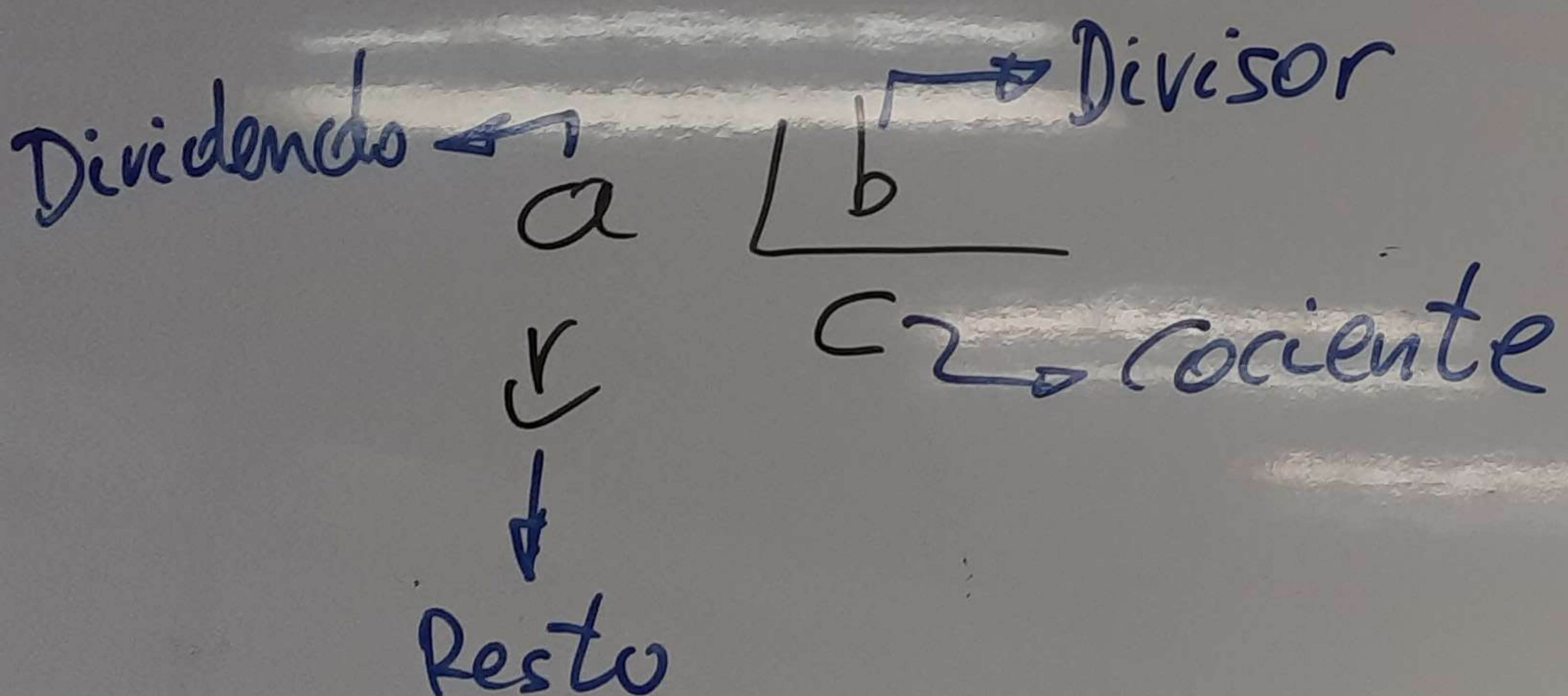
$$c) \quad 5 \cdot (4-2) = \begin{cases} 5 \cdot 2 = 10 \checkmark \\ 5 \cdot 4 - 5 \cdot 2 = 20 - 10 = 10 \checkmark \end{cases}$$

$$g) \quad 1 \cdot (4+5) = \begin{cases} 1 \cdot 9 = 9 \\ 1 \cdot 4 + 1 \cdot 5 = 4 + 5 = 9. \end{cases}$$

$$d) \quad (9-4) \cdot 6 = \begin{cases} 5 \cdot 6 = 30 \\ 9 \cdot 6 - 4 \cdot 6 = 54 - 24 = 30 \checkmark. \end{cases}$$

$$h) \quad 1 \cdot (5-0) = \begin{cases} 1 \cdot 5 = 5 \\ 1 \cdot 5 - 1 \cdot 0 = 5 - 0 = 5 \end{cases}$$

- División = Cociente



División exacta

$$\begin{array}{r} 12,5 \quad 15 \\ 2,5 \quad 25 \\ \hline 0 \end{array}$$

División entera

$$\begin{array}{r} 15350 \quad 125 \\ 035 \quad 61,4 \\ \hline 100 \\ 00 \end{array}$$

Prueba de la división

$$\begin{array}{r} a \quad b \\ \overline{) c} \\ r \end{array}$$

$$\boxed{a = b \cdot c + r}$$

$$\begin{array}{r} 1535 \quad 125 \\ 10 \quad 61 \\ \hline \end{array} \Rightarrow 25 \cdot 61 - 10 =$$
$$= \boxed{1535} \checkmark$$