

FICHA 4: Operaciones combinadas con fracciones (I)

1. Efectuar las siguientes **operaciones combinadas**, simplificando siempre en todos los pasos, y respetando la jerarquía:

a) $\frac{1}{2} \cdot \left(\frac{3}{2} + \frac{2}{3} \right) =$ (Sol: 13/12)

b) $\frac{1}{2} \cdot \frac{3}{2} + \frac{2}{3} =$ (Sol: 17/12)

c) $\frac{1}{2} + \frac{3}{2} \cdot \frac{14}{5} =$ (Sol: 47/10)

d) $\frac{2}{5} \cdot \frac{1}{2} + \frac{4}{3} - \frac{1}{6} =$ (Sol: 41/30)

e) $\frac{2}{5} + \frac{1}{2} \cdot \frac{4}{3} - \frac{1}{6} =$ (Sol: 9/10)

f) $\frac{2}{5} : \frac{1}{2} - \frac{4}{3} : \frac{1}{6} =$ (Sol: -36/5)

g) $\frac{5}{8} - \frac{1}{6} \cdot \left(\frac{1}{2} - \frac{2}{3} \right) =$ (Sol: 47/72)

h) $\frac{5}{8} - \frac{1}{6} \cdot \frac{1}{2} + \frac{2}{3} =$ (Sol: 29/24)

i) $\frac{17}{15} \cdot \frac{1}{5} + \frac{4}{3} =$ (Sol: 39/25)

j) $\frac{5}{2} - 1 : \frac{1}{3} \cdot \frac{4}{5} =$ (Sol: 1/10)

k) $\frac{2}{3} - \left(2 : \frac{4}{5} + \frac{1}{2} \right) =$ (Sol: -7/3)

l) $1 - \frac{3}{4} : \frac{2}{9} - \frac{1}{3} + \frac{2}{3} =$ (Sol: -49/24)

$$m) 4 \cdot \frac{343}{64} + 3 : \frac{16}{49} - \frac{45}{4} \cdot \frac{7}{4} + \frac{17}{16} =$$

(Sol: 12)

$$n) 1 - \left[\frac{3}{4} : \left(\frac{2}{9} - \frac{1}{3} \right) + \frac{2}{3} \right] =$$

(Sol: 85/12)

$$o) \frac{1}{2} - \frac{5}{2} \cdot \left(\frac{1}{3} - \frac{4}{5} \right) =$$

(Sol: 5/3)

$$p) \left(\frac{1}{2} - \frac{5}{2} \right) \cdot \frac{1}{3} - \frac{4}{5} =$$

(Sol: -22/15)

$$q) \left(\frac{1}{2} - \frac{5}{2} \right) \cdot \left(\frac{1}{3} - \frac{4}{5} \right) =$$

(Sol: 14/15)

$$r) \left(\frac{2}{3} - \frac{3}{2} + 1 \right) : \left(\frac{1}{4} - \frac{4}{3} \right) =$$

(Sol: -2/13)

$$s) \frac{2}{3} - \left(\frac{3}{2} + 1 : \frac{1}{4} \right) - \frac{4}{3} =$$

(Sol: -37/6)

$$t) \frac{2}{3} - \left[\frac{3}{2} + 1 : \left(\frac{1}{4} - \frac{4}{3} \right) \right] =$$

(Sol: 7/78)

$$u) \frac{1}{5} \cdot \left(\frac{2}{7} - \frac{1}{3} \right) - \frac{3}{2} =$$

(Sol: -317/210)

$$v) \frac{3}{2} \cdot \left(\frac{1}{3} + \frac{6}{5} \right) - \left(\frac{3}{2} + 3 \right) =$$

(Sol: -11/5)

$$w) \frac{1}{2} \cdot \frac{8}{3} - \frac{5}{3} : \left(2 - \frac{1}{5} \right) + 1 =$$

(Sol: 38/27)

$$x) \left(\frac{2}{5} - 3 + \frac{1}{3} \right) : \frac{2}{3} - \frac{1}{3} \cdot \frac{6}{5} =$$

(Sol: -19/5)

$$y) -4 : \frac{64}{125} + 3 \cdot \frac{25}{16} + \frac{45}{4} \cdot \frac{5}{4} + \frac{17}{16} =$$

(Sol: 12)

$$z) 8 \cdot \frac{65}{23} - 7 \cdot \frac{25}{23} =$$

(Sol: 15)

$$\alpha) \frac{2}{3} : \left[\frac{1}{3} \cdot \left(1 - \frac{5}{3} + \frac{1}{2} \right) + 5 \right] =$$

(Sol: 12/89)

$$\beta) 4 - \frac{3}{8} \cdot \frac{6}{5} + \frac{4}{3} - \frac{2}{3} : 4 =$$

(Sol: 283/60)

$$\gamma) 4 - \frac{3}{8} \cdot \left(\frac{6}{5} + \frac{4}{3} - \frac{2}{3} : 4 \right) =$$

(Sol: 249/80)

$$\delta) 1 : \left[\left(\frac{2}{7} - \frac{1}{3} \right) \cdot \frac{3}{2} \right] =$$

(Sol: -14)

$$\epsilon) \frac{1}{35} : \frac{1}{35} - \frac{1}{7} : \frac{1}{35} =$$

(Sol: -4)

$$\zeta) \left[5 + \frac{5}{6} : \left(\frac{7}{5} - \frac{2}{5} \cdot \frac{15}{4} \right) \right] \cdot \left(-\frac{2}{5} \right) =$$

(Sol: 4/3)

$$\eta) \frac{1}{35} : \left(\frac{3}{7} - \frac{2}{5} \right) - \frac{4}{13} \cdot \left[\frac{1}{3} - \left(\frac{1}{4} - 1 \right) \right] =$$

(Sol: 2/3)

$$\theta) \frac{2}{3} - \frac{3}{2} \cdot \frac{4}{9} : \left(1 + \frac{3}{5} \cdot \frac{1}{6} \right) - 1$$

(Sol: -31/33)

$$i) 6 : \frac{23}{65} - 11 \cdot \frac{25}{23} =$$

(Sol: 5)

$$\kappa) \left(\frac{1}{2} + \frac{1}{3} \right) - \left[\frac{5}{2} - \left(2 + \frac{1}{3} \right) \cdot \left(1 - \frac{1}{7} \right) \right] \cdot \left(1 - \frac{1}{3} \right) =$$

(Sol: 1/2)

👉 Ejercicios libro ed. Santillana: pág. 22: 18; pág. 32: 67 y 68