

# OPERACIONES COMBINADAS

1. Calcula, paso a paso, y simplifica:

$$\begin{aligned} & \frac{5}{6} - \frac{3}{4} \cdot \frac{2}{5} + \frac{3}{2} = \\ & = \frac{5}{6} - \frac{6}{20} + \frac{3}{2} = \\ \text{a)} \quad & = \frac{50}{60} - \frac{6}{60} + \frac{90}{60} = \\ & = \frac{122}{60} = \frac{61}{30} \end{aligned}$$

$$\begin{aligned} & \frac{5}{6} - \frac{3}{4} \cdot \frac{2}{5} + \frac{3}{2} = \\ & = \frac{5}{6} - \frac{15}{8} + \frac{3}{2} = \\ \text{b)} \quad & = \frac{20}{24} - \frac{45}{24} + \frac{36}{24} = \\ & = \frac{11}{24} \end{aligned}$$

$$\begin{aligned} & \frac{1}{2} : \frac{3}{4} \cdot \frac{3}{5} + \frac{3}{2} = \\ & = \frac{4}{6} \cdot \frac{3}{5} + \frac{3}{2} = \\ \text{c)} \quad & = \frac{12}{30} + \frac{3}{2} = \\ & = \frac{12}{30} + \frac{45}{30} = \\ & = \frac{57}{30} = \frac{19}{10} \end{aligned}$$

$$\begin{aligned} & \frac{1}{2} \cdot \frac{3}{4} : \frac{3}{5} + \frac{3}{2} = \\ & = \frac{3}{8} : \frac{3}{5} + \frac{3}{2} = \\ \text{d)} \quad & = \frac{15}{24} + \frac{3}{2} = \\ & = \frac{15}{24} + \frac{36}{24} = \\ & = \frac{51}{24} = \frac{17}{8} \end{aligned}$$

$$\begin{aligned} & 6 - \frac{3}{8} : \frac{5}{4} - \frac{1}{20} = \\ & = 6 - \frac{12}{40} - \frac{1}{20} = \\ \text{e)} \quad & = \frac{240}{40} - \frac{12}{40} - \frac{2}{40} = \\ & = \frac{226}{40} = \frac{113}{20} \end{aligned}$$

$$\begin{aligned} & \frac{3}{4} : \frac{2}{5} - \frac{1}{3} \cdot \frac{4}{9} = \\ & = \frac{15}{8} - \frac{4}{27} = \\ \text{f)} \quad & = \frac{405}{216} - \frac{32}{216} = \\ & = \frac{373}{216} \end{aligned}$$

$$\begin{aligned} & 2 : \frac{8}{5} - \frac{16}{3} : 4 = \\ & = \frac{10}{8} - \frac{16}{12} = \\ \text{g)} \quad & = \frac{30}{24} - \frac{32}{24} = \\ & = \frac{-2}{24} = -\frac{1}{12} \end{aligned}$$

$$\begin{aligned} & \frac{1}{2} : 10 - 10 : \frac{1}{2} = \\ & = \frac{1}{20} - 20 = \\ \text{h)} \quad & = \frac{1}{20} - \frac{400}{20} = \\ & = -\frac{399}{20} \end{aligned}$$



2. Efectúa, paso a paso, y simplifica:

$$\begin{aligned} & \frac{3}{4} - \frac{1}{4} \cdot \left( \frac{3}{5} - \frac{1}{10} \right) = \\ & = \frac{3}{4} - \frac{1}{4} \cdot \left( \frac{6}{10} - \frac{1}{10} \right) = \\ & = \frac{3}{4} - \frac{1}{4} \cdot \frac{5}{10} = \\ & = \frac{3}{4} - \frac{5}{40} = \\ & = \frac{30}{40} - \frac{5}{40} = \\ & = \frac{25}{40} = \frac{5}{8} \end{aligned}$$

a)

$$\begin{aligned} & 5 + \frac{7}{3} : \left( \frac{4}{3} + 2 \right) = \\ & = 5 + \frac{7}{3} : \left( \frac{4}{3} + \frac{6}{3} \right) = \\ & = 5 + \frac{7}{3} : \frac{10}{3} = \\ & = 5 + \frac{21}{30} = \\ & = \frac{150}{30} + \frac{21}{30} = \\ & = \frac{171}{30} = \frac{57}{10} \end{aligned}$$

b)

$$\begin{aligned} & \frac{3}{8} - \frac{1}{4} : \left( \frac{2}{3} \cdot \frac{3}{4} \right) = \\ & = \frac{3}{8} - \frac{1}{4} : \frac{6}{12} = \\ & = \frac{3}{8} - \frac{12}{24} = \\ & = \frac{9}{24} - \frac{12}{24} = \\ & = -\frac{3}{24} = -\frac{1}{8} \end{aligned}$$

c)

$$\begin{aligned} & \frac{8}{3} - \left( \frac{1}{3} + \frac{1}{2} \right) : \frac{5}{4} = \\ & = \frac{8}{3} - \left( \frac{2}{6} + \frac{3}{6} \right) : \frac{5}{4} = \\ & = \frac{8}{3} - \frac{5}{6} : \frac{5}{4} = \\ & = \frac{8}{3} - \frac{20}{30} = \\ & = \frac{80}{30} - \frac{20}{30} = \\ & = \frac{60}{30} = 2 \end{aligned}$$

d)

$$\begin{aligned} & \left( \frac{8}{3} - \frac{1}{3} + \frac{1}{2} \right) : \frac{5}{4} = \\ & = \left( \frac{16}{6} - \frac{2}{6} + \frac{3}{6} \right) : \frac{5}{4} = \\ & = \frac{17}{6} : \frac{5}{4} = \\ & = \frac{68}{30} = \frac{34}{15} \end{aligned}$$

e)

$$\begin{aligned} & \frac{8}{3} - \left( \frac{1}{3} + \frac{1}{2} : \frac{5}{4} \right) = \\ & = \frac{8}{3} - \left( \frac{1}{3} + \frac{4}{10} \right) = \\ & = \frac{8}{3} - \left( \frac{10}{30} + \frac{12}{30} \right) = \\ & = \frac{8}{3} - \frac{22}{30} = \\ & = \frac{80}{30} - \frac{22}{30} = \\ & = \frac{58}{30} = \frac{29}{15} \end{aligned}$$

f)

