

TEXTO Nº 9

**Ejercicios resueltos
de operaciones
combinadas
con fracciones**

1. $\left(\frac{19}{16} - \frac{4}{16}\right) - \frac{3}{16} = \left\downarrow \frac{15}{16} - \frac{3}{16} = \frac{12}{16} = \frac{3}{4}$
2. $\frac{7}{6} - \left(\frac{5}{6} - \frac{1}{6}\right) = \left\downarrow \frac{7}{6} - \left(\frac{4}{6}\right) = \left\downarrow \frac{7}{6} - \frac{4}{6} = \frac{3}{6} = \frac{1}{2}$
3. $7 - \left(4 - \frac{11}{19}\right) = \left\downarrow 7 - \left(\frac{4 \cdot 19}{19} - \frac{11}{19}\right) = \left\downarrow 7 - \left(\frac{76}{19} - \frac{11}{19}\right) = \left\downarrow 7 - \left(\frac{65}{19}\right) = \left\downarrow \frac{133}{19} - \frac{65}{19} = \frac{68}{19}$
4. $3 - \frac{11}{12} - \frac{3}{4} - \frac{1}{6} = \left\downarrow \frac{36}{12} - \frac{11}{12} - \frac{9}{12} - \frac{2}{12} = \left\downarrow \frac{36}{12} - \frac{22}{12} = \left\downarrow \frac{14}{12} = \frac{7}{6}$
5. $\left[\frac{77}{6} - \left(4 - \frac{7}{3}\right)\right] - \frac{1}{2} = \left\downarrow \left[\frac{77}{6} - \left(\frac{12}{3} - \frac{7}{3}\right)\right] - \frac{1}{2} = \left\downarrow \left[\frac{77}{6} - \frac{5}{3}\right] - \frac{1}{2} = \left\downarrow \frac{67}{6} - \frac{1}{2} = \frac{64}{6} = \frac{32}{3}$
6. $2 \cdot \frac{1}{2} = \left\downarrow \frac{2}{1} \cdot \frac{1}{2} = \left\downarrow \frac{2 \cdot 1}{1 \cdot 2} = \frac{2}{2} = 1$
7. $\frac{3}{4} \cdot 4 = \left\downarrow \frac{3}{4} \cdot \frac{4}{1} = \left\downarrow \frac{3 \cdot 4}{4 \cdot 1} = \left\downarrow \frac{12}{4} = 3$
8. $\frac{8}{15} : \frac{4}{5} = \left\downarrow \frac{8 \cdot 5}{15 \cdot 4} = \frac{40}{60} = \frac{2}{3}$
9. $\frac{2}{3} : 5 = \left\downarrow \frac{2}{3} : \frac{5}{1} = \left\downarrow \frac{2 \cdot 1}{3 \cdot 5} = \frac{2}{15}$
10. $0 : \frac{1}{2} = 0$ * cero dividido entre un número es siempre cero. No tenemos nada para repartir.

$$11. \quad -2 + \frac{3}{4} : \left(-\frac{1}{2}\right) = \left\downarrow -2 + \left(\frac{3 \cdot (-2)}{4 \cdot 1}\right) = \left\downarrow -2 - \frac{6}{4} = \left\downarrow -\frac{8}{4} - \frac{6}{4} = \left\downarrow -\frac{14}{4} = -\frac{7}{2}$$

* El signo - puede ir en el numerador, en el denominador o delante de la fracción.

En el denominador no se suele poner.

12. $\frac{-3}{-6} : \frac{-8}{8} = \left\downarrow \frac{3}{8} : \frac{-6}{1} = \left\downarrow \frac{3}{-48} = -\frac{1}{16}$
13. $\left[\left(-\frac{2}{5}\right) : (-4)\right] : \left[\left(\frac{5}{-3}\right) : \left(-\frac{1}{-6}\right)\right] = \left\downarrow \left[\frac{2}{20}\right] : \left[\frac{30}{3}\right] = \left\downarrow \frac{1}{10} : 10 = \left\downarrow \frac{10}{10} = 1$

* Cuando hay operaciones en el numerador y en el denominador, hacemos por separado el numerador y el denominador. Después dividimos el numerador entre el denominador.

14. $\frac{3 + \frac{1}{2} \cdot \frac{4}{3}}{\frac{7}{3} - \frac{5}{6}} = \left\downarrow \frac{3 + \frac{4}{6}}{\frac{14}{6} - \frac{5}{6}} = \left\downarrow \frac{\frac{22}{6}}{\frac{9}{6}} = \left\downarrow \frac{22 \cdot \cancel{6}}{\cancel{6} \cdot 9} = \frac{22}{9}$
15. $\frac{\frac{3}{5} - \frac{1}{4}}{\frac{4}{3} \cdot \frac{2}{9} - \frac{9}{7}} = \left\downarrow \frac{\frac{12}{20} - \frac{5}{20}}{\frac{36}{6} - \frac{9}{7}} = \left\downarrow \frac{\frac{7}{20}}{6 - \frac{9}{7}} = \left\downarrow \frac{\frac{7}{20}}{\frac{42}{7} - \frac{9}{7}} = \left\downarrow \frac{\frac{7}{20}}{\frac{33}{7}} = \left\downarrow \frac{7 \cdot 7}{20 \cdot 33} = \frac{49}{660}$

REFERENCIA : www.vadenumeros.es