

17 EJERCICIOS DE FRACCIONES

Resolver las siguientes fracciones de términos racionales, **simplificando en todo momento** los pasos intermedios y el resultado:

1.
$$\frac{\frac{3}{5} + \frac{1}{2}}{\frac{2}{3} - \frac{1}{2}} =$$
 (Soluc: 33/5)

2.
$$\frac{\frac{2}{5} - \frac{1}{2} + \frac{1}{3}}{\frac{2}{3} \cdot \frac{6}{5}} =$$
 (Soluc: 7/24)

3.
$$\frac{\frac{1}{2} + \frac{3}{2} \cdot \frac{1}{6}}{\left(\frac{1}{2} + \frac{3}{2}\right) \cdot \frac{1}{6}} =$$
 (Soluc: 1/16)

4.
$$\frac{\frac{1}{2} + \frac{3}{5} : \frac{2}{3} - 4}{\left(3 + \frac{2}{5}\right) \cdot \frac{1}{3}} =$$
 (Soluc: -39/17)

5.
$$\frac{\left(2 + \frac{1}{3}\right) \cdot \left(4 - \frac{2}{3}\right)}{1 + \frac{5}{4} : \frac{3}{12}} =$$
 (Soluc: 35/27)

6.
$$\frac{1 + \frac{1}{2}}{1 - \frac{1}{3}} =$$
 (Soluc: 9/4)

7.
$$\frac{1 - \frac{1}{2} + \frac{1}{3} \cdot \frac{1}{5} - 3}{\left(1 - \frac{1}{2}\right) \cdot \left(\frac{1}{3} + \frac{1}{5}\right) + 3} =$$
 (Soluc: -73/98)

8.
$$\frac{\left(\frac{2}{5} : 3 + \frac{1}{2}\right) \cdot \frac{1}{3} - \frac{2}{7}}{\frac{2}{5} \cdot 3 - \left(\frac{1}{2} + \frac{1}{3}\right) \cdot \frac{2}{7}} =$$

(Soluc: -47/606)

9.
$$\frac{\frac{3}{5} : \left(1 - \frac{2}{3} \cdot \frac{9}{4}\right) + 3}{\left[\frac{1}{7} \cdot \left(\frac{2}{7} - \frac{1}{3}\right) + \frac{5}{2}\right] : \frac{1}{2}} =$$

(Soluc: 1323/3665)

$$10. \frac{\frac{1}{2} - \frac{1}{3} \cdot \frac{2}{5} + \frac{3}{2} : \frac{1}{4} + 5}{\frac{1}{2} - \frac{1}{3} \cdot \left(\frac{2}{5} + \frac{3}{2} : \frac{1}{4} + 5 \right)} =$$

(Soluc: -31/9)

$$11. \frac{\left(\frac{1}{2} : \frac{1}{3} + 2 \right) \cdot \frac{2}{5} - \frac{1}{2}}{\frac{1}{3} : \left(\frac{2}{3} + \frac{1}{3} \cdot \frac{5}{2} \right) + \frac{1}{3}} =$$

(Soluc: 81/50)

$$12. \frac{\frac{2}{5} - \frac{6}{3} + \frac{2}{3} \cdot \frac{1}{2} + \frac{1}{3}}{1 - \frac{2}{5} - \frac{6}{4} - \frac{2}{3} + \frac{6}{5}} =$$

(Soluc: 893/1512)

$$13. \frac{\frac{1}{2} + \frac{1}{3} - \frac{1}{4}}{2 + \frac{5}{2} - \frac{1}{6}} \cdot \frac{2}{1 - \frac{3}{2 - \frac{1}{4}}} =$$

(Soluc: -49/130)

$$14. \frac{\frac{5}{3} + \frac{3}{4} : 1 - \frac{5}{4} + \frac{17}{3}}{\frac{15}{3} + \frac{2}{5}} =$$

(Soluc: 205/162)

$$15. \frac{\left[-3 + \frac{2}{5} \left(\frac{1}{2} + \frac{3}{2} \cdot \frac{8}{27} \right) \right] : \frac{3}{2}}{\left(\frac{2}{5} - 3 : \frac{3}{2} \right) : \frac{8}{27} \cdot \left(\frac{1}{2} + \frac{3}{2} \right)} =$$

(Soluc: 59/32)

$$16. \frac{\frac{1}{4} + \frac{2}{4} + \frac{3}{4} \cdot \frac{2}{9}}{2 + \frac{1}{3} \cdot \left(2 - \frac{1}{3} \cdot \frac{6}{5} \right)} =$$

(Soluc: 55/152)

$$17. \frac{\frac{5}{3} - \left[\frac{2}{3} : \frac{2}{5} - \left(3 + \frac{1}{2} \right) \right] : \frac{3}{11}}{\frac{14}{3} - \frac{13}{3} : \left(\frac{2}{5} - 3 \right) + \frac{1}{2}} =$$

(Soluc: 13/21)