

EJERCICIOS DE FRACCIONES

HOJA 4

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

$$1. \frac{\frac{1}{5} + \frac{3}{5} \cdot \frac{25}{6} - 2 : \frac{4}{9}}{\frac{4}{9} \left(\frac{1}{5} - 2 \right) - \frac{1}{3}} = \quad (\text{Soluc: } 27/17)$$

$$2. \frac{2 - \frac{5}{3} : \left(1 + \frac{1}{5} \right) - 2}{2 : \frac{5}{3} + 1 - \frac{1}{5} : 2} = \quad (\text{Soluc: } -125/189)$$

$$3. \frac{\frac{3}{5} : \frac{1}{2} + \frac{2}{5} - \frac{1}{5} : \left(\frac{3}{5} \cdot \frac{10}{9} \right)}{\frac{3}{5} + \frac{1}{5} : \frac{2}{5} \cdot \frac{1}{5} \left(\frac{3}{5} + \frac{10}{9} \right)} = \quad (\text{Soluc: } 585/347)$$

$$4. 1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{2}}} = \quad (\text{Soluc: } 8/5)$$

$$5. \frac{\left[\left(\frac{1}{7} - \frac{1}{2} \right) \frac{2}{3} + \frac{1}{3} \right] \frac{2}{5} - 3}{\frac{1}{7} - \frac{1}{2} \cdot \frac{2}{3} : \frac{1}{3} \cdot \frac{2}{5} - 3} = \quad (\text{Soluc: } 311/342)$$

$$6. 3 + \frac{2}{3 + \frac{2}{3 + \frac{2}{3}}} = \quad (\text{Soluc: } 139/39)$$

$$7. \frac{\frac{1}{2} \cdot \frac{8}{3} + \frac{3}{5} : \frac{9}{25} - 1}{\frac{1}{2} \cdot \left(\frac{8}{3} + \frac{3}{5} \right) : \frac{9}{25} + 1} = \quad (\text{Soluc: } 108/299)$$

$$8. \frac{\frac{3}{5} : 3 - 2 \cdot \frac{3}{8} + \frac{2}{3}}{\frac{2}{3} + \frac{1}{3} \left(\frac{2}{4} + \frac{1}{6} \right) - 3} = \quad (\text{Soluc: } -21/380)$$

$$9. \frac{\left[\left(\frac{1}{2} + \frac{3}{2} \cdot \frac{8}{27} \right) \frac{2}{5} - 3 \right] : \frac{3}{2}}{\left(\frac{1}{2} + \frac{3}{2} \right) \frac{8}{27} \left(\frac{2}{5} - 3 : \frac{3}{2} \right)} = \quad (\text{Soluc: } 59/32)$$

$$10. 1 + \frac{2}{3 + \frac{4}{5 + \frac{6}{7}}} = \quad (\text{Soluc: } 233/151)$$

$$11. \frac{\frac{3}{2} + \frac{1}{2} \left(\frac{2}{3} - \frac{3}{5} - 3 \right) + \frac{29}{6} : 5}{1 + \frac{2}{3 + \frac{4}{5}} : \left(2 - \frac{28}{19} \right)} = \quad (\text{Soluc: } 1/2)$$

$$12. \frac{\frac{3}{2} - \frac{2}{3} + \frac{15}{8} \cdot \frac{2}{3}}{\frac{2}{3} \left(-\frac{9}{10} \right) - \left(\frac{2}{3} - \frac{1}{3} \cdot \frac{12}{5} \right)} = \quad (\text{Soluc: } -125/28)$$

$$13. \frac{\frac{4}{3} - \frac{2}{3} \left(2 - \frac{2}{3} + \frac{1}{5} \right) : \frac{2}{5} - \frac{1}{5}}{\frac{4}{3} - \frac{2}{3} : 2 - \left(\frac{2}{3} + \frac{1}{5} : \frac{2}{5} \right) - \frac{1}{5}} = \quad (\text{Soluc: } 128/33)$$

$$14. \frac{\left(\frac{3}{5} - \frac{1}{6} + \frac{2}{24} \right) - \left(\frac{2}{30} - \frac{1}{4} + \frac{3}{9} \right)}{\left(\frac{1}{3} - \frac{5}{10} \right) : \frac{5}{3} - \frac{4}{16} \left(3 - \frac{5}{3} \right)} = \quad (\text{Soluc: } -11/13)$$

$$15. \frac{\left(\frac{1}{5} + 2 - \frac{1}{3} \right) : \frac{1}{5} + \frac{3}{2}}{\frac{1}{5} + \left(2 - \frac{1}{3} : \frac{1}{5} \right) \cdot \frac{3}{2}} = \quad (\text{Soluc: } 325/21)$$

$$16. \frac{\frac{3}{2} \left(\frac{2}{5} + 3 : \frac{6}{5} \right) - \frac{7}{20}}{\left(3 + \frac{3}{2} \cdot \frac{4}{10} \right) : \frac{6}{5} - \frac{4}{5}} = \quad (\text{Soluc: } 20/11)$$