

Tema 4. Fracciones (I)**Autoevaluación**

1. Reduce a común denominador las fracciones:

$$a) \frac{2}{5}, \frac{1}{3}, \frac{1}{6} \rightarrow (\text{denominador común, } 30) \rightarrow \frac{12}{30}, \frac{10}{30}, \frac{5}{30}.$$

$$b) \frac{1}{3}, \frac{7}{15}, \frac{5}{12} \rightarrow$$

$$c) \frac{2}{9}, \frac{4}{15}, \frac{11}{30} \rightarrow$$

$$d) \frac{2}{7}, \frac{8}{21}, \frac{11}{42} \rightarrow$$

2. Halla:

$$a) \frac{2}{5} + \frac{1}{3} - \frac{1}{6} = \frac{12}{30} + \frac{10}{30} - \frac{5}{30} = \frac{12+10-5}{30} = \frac{17}{30}.$$

$$b) \frac{1}{3} - \frac{7}{15} - \frac{5}{12} =$$

$$c) \frac{2}{9} - \frac{4}{15} + \frac{11}{30} =$$

$$d) \frac{2}{7} - \left(\frac{8}{21} - \frac{11}{42} \right) =$$



3. Halla:

$$a) 3 + \frac{1}{5} = \frac{3 \cdot 5 + 1}{5} = \frac{15 + 1}{5} = \frac{16}{5}.$$

$$b) 2 - \frac{1}{4} =$$

$$c) \frac{2}{7} + 3 =$$

$$d) \frac{11}{2} - 4 =$$

4. Calcula y simplifica:

$$a) \frac{3}{7} - \frac{1}{3} =$$

$$b) 2 + \frac{1}{4} - \frac{5}{12} =$$

$$c) \frac{3}{5} \cdot \frac{15}{18} =$$

$$d) \frac{3}{5} : \frac{12}{7} =$$

5. Halla, simplificando el resultado:

$$a) \frac{5}{12} \cdot \frac{9}{15} =$$

$$b) \frac{7}{18} \cdot \frac{6}{7} =$$

$$c) 10 \cdot \frac{9}{15} =$$

$$d) \frac{8}{15} \cdot 12 =$$

6. Calcula, simplificando el resultado:

$$\text{a) } \frac{5}{12} : \frac{4}{15} =$$

$$\text{b) } 4 : \frac{2}{3} =$$

$$\text{c) } \frac{8}{15} : \frac{12}{15} =$$

$$\text{d) } \frac{50}{3} : 5 =$$

7. Calcula:

$$\text{a) } \frac{2}{5} - \left(\frac{1}{3} - \frac{1}{6} \right) = \frac{2}{5} - \left(\frac{2}{6} - \frac{1}{6} \right) = \frac{2}{5} - \frac{1}{6} = \frac{12}{30} - \frac{5}{30} = \frac{7}{30}.$$

$$\text{b) } \left(\frac{1}{3} - \frac{7}{15} \right) : \frac{5}{12} =$$

$$\text{c) } \frac{2}{7} : \left(\frac{8}{21} - \frac{11}{42} \right) =$$

8. Calcula y simplifica:

$$\text{a) } \frac{2}{3} + \frac{5}{3} \cdot \frac{1}{4} =$$

$$\text{b) } \frac{1}{3} : \left[\frac{5}{4} \cdot \frac{3}{10} \right] =$$

$$\text{c) } \frac{\frac{3}{4} + 1}{\frac{3}{5} - 2} =$$

$$\text{d) } \frac{2}{5} - \frac{1}{3} \cdot \left(3 - \frac{7}{4} \right) =$$

9. Calcula y simplifica:

$$\text{a) } \left(\frac{2}{5} - \frac{1}{7} \right) \cdot \left(3 - \frac{7}{4} \right) =$$

$$\text{b) } \left(\frac{2}{5} - \frac{1}{7} \right) \cdot 3 - \frac{7}{4} =$$

$$\text{c) } \frac{2}{5} - \frac{1}{7} \cdot 3 - \frac{7}{4} =$$



10. Calcula:

$$\text{a) } \left(\frac{2}{3} + \frac{5}{9} \right) : \frac{3}{4} - \frac{1}{5} =$$

$$\text{b) } \left(\frac{2}{3} - \frac{5}{9} \right) + \frac{3}{4} \cdot \frac{1}{5} =$$

$$\text{c) } \left(\frac{2}{3} - \frac{5}{9} \right) : \frac{5}{6} - \frac{1}{5} =$$

Soluciones:

- 1.a) $\frac{12}{30}, \frac{10}{30}, \frac{5}{30}$. b) $\frac{20}{60}, \frac{28}{60}, \frac{25}{60}$. c) $\frac{20}{90}, \frac{24}{90}, \frac{33}{90}$. d) $\frac{12}{42}, \frac{16}{42}, \frac{11}{42}$
- 2.a) $\frac{17}{30}$. b) $-\frac{11}{20}$. c) $\frac{29}{90}$. d) $\frac{1}{6}$. 3. a) $\frac{16}{5}$. b) $\frac{7}{4}$. c) $\frac{23}{7}$. d) $\frac{3}{2}$.
4. a) $\frac{2}{21}$. b) $\frac{11}{6}$. c) $\frac{1}{2}$. d) $\frac{7}{20}$. 5. a) $\frac{1}{4}$. b) $\frac{1}{3}$. c) $\frac{18}{5}$. d) $\frac{32}{5}$.
6. a) $\frac{75}{48}$. b) $\frac{2}{3}$. c) $\frac{2}{3}$. d) $\frac{10}{3}$. 7. a) $\frac{7}{30}$. b) $-\frac{1}{8}$. c) $\frac{12}{5}$.
8. a) $\frac{13}{12}$. b) $\frac{8}{9}$. c) $-\frac{5}{4}$. d) $-\frac{1}{60}$. 9. a) $\frac{9}{28}$. b) $\frac{-137}{140}$. c) $\frac{-249}{140}$.
10. a) $\frac{43}{60}$. b) $\frac{47}{180}$. c) $-\frac{1}{15}$.