

Ejercicio.- Calcula:

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

$$b) \frac{2}{3} + \frac{1}{9} + \frac{3}{5}$$

$$c) \frac{4}{7} + \frac{2}{4} + \frac{1}{8}$$

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

$$e) \frac{5}{3} - \left(\frac{2}{5} \cdot \frac{7}{2} - \frac{1}{3}\right)$$

$$f) \left(\frac{2}{3} \cdot 5 - \frac{3}{4}\right) \cdot \frac{7}{2}$$

$$g) \left(\frac{3}{2} - \frac{1}{5} + \frac{1}{10}\right) \cdot 5 - \frac{3}{4} \cdot \frac{6}{5}$$

$$h) 1 - \left[\frac{3}{2} \cdot 5 - \frac{1}{2} \cdot \left(\frac{2}{3} + \frac{1}{9}\right)\right]$$

$$a) \frac{1}{5} + \frac{4}{3} + \frac{1}{2} = \frac{1 \cdot 6}{5 \cdot 6} + \frac{4 \cdot 10}{3 \cdot 10} + \frac{1 \cdot 15}{2 \cdot 15} = \frac{6 + 40 + 15}{30} = \frac{61}{30}$$

$$b) \frac{2}{3} + \frac{1}{9} + \frac{3}{5} = \frac{2 \cdot 15}{3 \cdot 15} + \frac{1 \cdot 5}{9 \cdot 5} + \frac{3 \cdot 9}{5 \cdot 9} = \frac{30 + 5 + 27}{45} = \frac{30 + 5 + 27}{45} = \frac{62}{45}$$

$$c) \frac{4}{7} + \frac{2}{4} + \frac{1}{8} = \frac{4 \cdot 8}{7 \cdot 8} + \frac{2 \cdot 14}{4 \cdot 14} + \frac{1 \cdot 7}{8 \cdot 7} = \frac{32 + 28 + 7}{56} = \frac{67}{56}$$

$$d) \frac{5}{3} - \left(\frac{2}{5} \cdot \frac{7}{2}\right) - \frac{1}{3} = \frac{5}{3} - \frac{7}{5} - \frac{1}{3} = \frac{5 \cdot 5}{3 \cdot 5} - \frac{7 \cdot 3}{5 \cdot 3} - \frac{1 \cdot 5}{3 \cdot 5} = \frac{25 - 21 - 5}{15} = \frac{25 - 26}{15} = \frac{-1}{15}$$

$$e) \frac{5}{3} - \left(\frac{2}{5} \cdot \frac{7}{2} - \frac{1}{3}\right) = \frac{5}{3} - \left(\frac{7}{5} - \frac{1}{3}\right) = \frac{5}{3} - \left(\frac{7 \cdot 3}{5 \cdot 3} - \frac{1 \cdot 5}{3 \cdot 5}\right) = \frac{5}{3} - \left(\frac{7 \cdot 3}{5 \cdot 3} - \frac{1 \cdot 5}{3 \cdot 5}\right) = \frac{5}{3} - \frac{21 - 5}{15} =$$

$$= \frac{5}{3} - \frac{16}{15} = \frac{5 \cdot 5}{3 \cdot 5} - \frac{16}{15} = \frac{25 - 16}{15} = \frac{9}{15} = \frac{3 \cdot 3}{3 \cdot 5} = \frac{3}{5}$$

$$f) \left(\frac{2}{3} \cdot 5 - \frac{3}{4}\right) \cdot \frac{7}{2} = \left(\frac{10}{3} - \frac{3}{4}\right) \cdot \frac{7}{2} = \left(\frac{10 \cdot 4}{3 \cdot 4} - \frac{3 \cdot 3}{4 \cdot 3}\right) \cdot \frac{7}{2} = \frac{40 - 9}{12} \cdot \frac{7}{2} = \frac{31}{12} \cdot \frac{7}{2} = \frac{31 \cdot 7}{12 \cdot 2} = \frac{217}{24}$$

$$g) \left(\frac{3}{2} - \frac{1}{5} + \frac{1}{10}\right) \cdot 5 - \frac{3}{4} \cdot \frac{6}{5} = \left(\frac{3 \cdot 5}{2 \cdot 5} - \frac{1 \cdot 2}{5 \cdot 2} + \frac{1}{10}\right) \cdot 5 - \frac{3 \cdot 2 \cdot 3}{2 \cdot 2 \cdot 5} = \frac{15 - 2 + 1}{10} \cdot 5 - \frac{9}{10} =$$

$$= \frac{16 - 2}{10} \cdot \frac{5}{1} - \frac{9}{10} = \frac{14}{10} \cdot \frac{5}{1} - \frac{9}{10} = \frac{70}{10} - \frac{9}{10} = \frac{61}{10}$$

$$\begin{aligned}
h) 1 - \left[\frac{3}{2} \cdot 5 - \frac{1}{2} \cdot \left(\frac{2}{3} + \frac{1}{9} \right) \right] &= 1 - \left[\frac{3}{2} \cdot 5 - \frac{1}{2} \cdot \left(\frac{2 \cdot 3}{3 \cdot 3} + \frac{1}{9} \right) \right] = 1 - \left[\frac{3}{2} \cdot 5 - \frac{1}{2} \cdot \frac{6+1}{9} \right] = \\
&= 1 - \left[\frac{3}{2} \cdot 5 - \frac{1}{2} \cdot \frac{7}{9} \right] = 1 - \left[\frac{15}{2} - \frac{7}{18} \right] = 1 - \left[\frac{15 \cdot 9}{2 \cdot 9} - \frac{7}{18} \right] = 1 - \frac{135 - 7}{18} = 1 - \frac{128}{18} = \\
&= 1 - \frac{2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2}{2 \cdot 3 \cdot 3} = 1 - \frac{64}{9} = \frac{1 \cdot 9}{1 \cdot 9} - \frac{64}{9} = \frac{9 - 64}{9} = \frac{-55}{9}
\end{aligned}$$