

EXAMEN DE FRACCIONES. 2º ESO.

1. $\frac{5}{2}, \frac{6}{3}, \frac{7}{5}, \frac{10}{6}, \frac{14}{8} \longrightarrow \overset{5/2}{\frac{300}{120}}, \overset{6/3}{\frac{240}{120}}, \overset{7/5}{\frac{168}{120}}, \overset{10/6}{\frac{200}{120}}, \overset{14/8}{\frac{210}{120}}$

$$\frac{7}{5} < \frac{10}{6} < \frac{14}{8} < \frac{6}{3} < \frac{5}{2} \quad 1 \quad \left(\frac{168}{120} < \frac{200}{120} < \frac{210}{120} < \frac{240}{120} < \frac{300}{120} \right)$$

2. a) $2 - \left[\frac{5}{3} - \left(\frac{1}{2} + \frac{3}{4} \right) - \frac{1}{5} \right] = 2 - \left[\frac{5}{3} - \left(\frac{2}{4} + \frac{3}{4} \right) - \frac{1}{5} \right] = 2 - \left[\frac{5}{3} - \frac{5}{4} - \frac{1}{5} \right] =$
 $= 2 - \left[\frac{100}{60} - \frac{75}{60} - \frac{12}{60} \right] = 2 - \left[\frac{13}{60} \right] = \frac{120}{60} - \frac{13}{60} = \frac{107}{60} \quad 1$

b) $\frac{7}{8} \div \left(-\frac{14}{10} \right) \cdot \left(\frac{24}{35} \right) = \frac{7 \cdot 10}{-14 \cdot 8} \cdot \frac{24}{35} = -\frac{7 \cdot 10 \cdot 24}{14 \cdot 8 \cdot 35} = -\frac{3}{7} \quad 1$

3. a) $\left(-\frac{2}{5} \right)^3 = -\frac{8}{125} \quad 0,5$; b) $\left[\left(-\frac{2}{3} \right)^2 \right]^2 = \left(-\frac{2}{3} \right)^4 = \frac{16}{81} \quad 0,5$

c) $\left(\frac{1}{2} \right)^2 \cdot \left(-\frac{1}{2} \right)^7 = -\left(\frac{1}{2} \right)^9 = -\frac{1}{512} \quad 0,5$

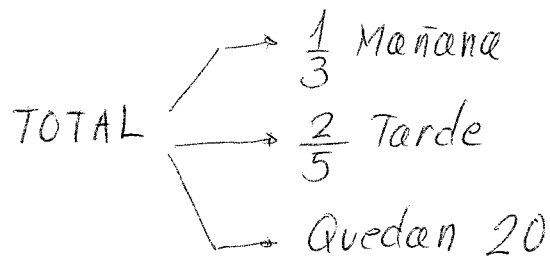
4. a) $\frac{m^5 \cdot m^{12}}{m^8} = \frac{m^{17}}{m^8} = m^9$ b) $x^3 \div \left(\frac{1}{x} \right)^2 = x^3 \div \frac{1}{x^2} = \frac{x^5}{1} = x^5 \quad 0,5$

c) $\frac{(-2)^5 \cdot 3^5}{6^5} = -\frac{6^5}{6^5} = -1 \quad 0,5$

5. $2 - \frac{1}{4} \cdot \left(\frac{7}{3} + \frac{3}{2} \right) \div \left(\frac{1}{2} \div 2 \right) = 2 - \frac{1}{4} \cdot \left(\frac{14}{6} + \frac{9}{6} \right) \div \left(\frac{1}{4} \right) =$
 $= 2 - \frac{1}{4} \cdot \frac{23}{6} \div \frac{1}{4} = 2 - \frac{23}{24} \div \frac{1}{4} = 2 - \frac{23}{24} \cdot \frac{4}{1} = 2 - \frac{23 \cdot 4}{24} =$
 $= 2 - \frac{23}{6} = \frac{12}{6} - \frac{23}{6} = -\frac{11}{6} \quad 1$

6. $\left[\left(\frac{1}{3} + 3 \right) \div \left(2 - \frac{1}{4} \right) \right] \cdot \left(\frac{3}{2} \right)^2 = \left[\frac{10}{3} \div \frac{7}{4} \right] \cdot \left(\frac{3}{2} \right)^2 = \frac{40}{21} \cdot \frac{9}{4} = \frac{40 \cdot 9}{21 \cdot 4} = \frac{30}{7} \quad 1$

7.

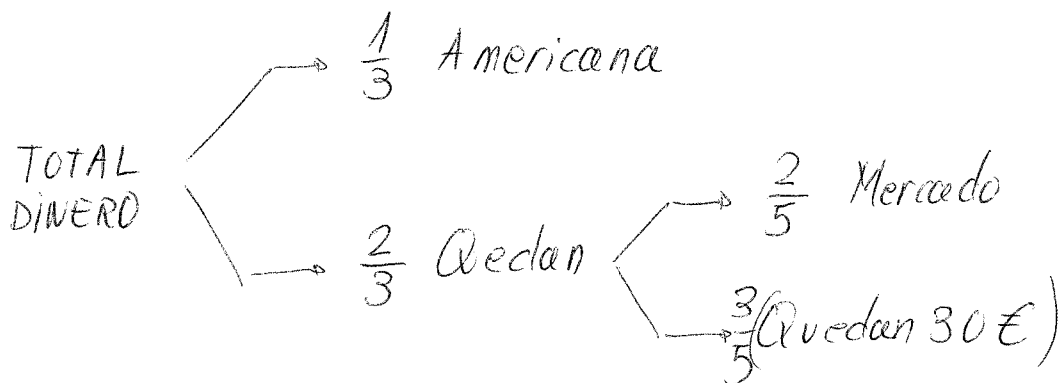


$$\frac{1}{3} + \frac{2}{5} = \frac{5}{15} + \frac{6}{15} = \frac{11}{15} \text{ VENDIDOS} \Rightarrow \text{Quedan } \frac{4}{15}$$

Por tanto $\frac{4}{15}$ son 20 $\Rightarrow 20 : 4 = 5 \Rightarrow \frac{1}{15}$ son **5** $\Rightarrow$

$$\text{TOTAL} = \mathbf{5} \times 15 = \mathbf{75} \text{ periódicos había recibido.}$$

8.



$$\frac{3}{5} \text{ de } \frac{2}{3} = \frac{3}{5} \cdot \frac{2}{3} = \frac{2}{5}; \quad \frac{2}{5} \text{ son } 30 \text{ €} \Rightarrow$$

$$30 : 2 = 15 \Rightarrow \frac{1}{5} \text{ son } 15 \Rightarrow \text{TOTAL DINERO} = 15 \times 5 = 75 \text{ €}$$