

EXAMEN RESUELTO

ENTEROS, FRACCIONES, POTENCIAS Y RADICALES.

a) $2 - 7 \cdot (-5) = 2 + 35 = 37$

b) $3 \cdot (-2) + 4 \cdot (-1) = -6 - 4 = -10$

c) $5 \cdot [2 + 4 \cdot (-1)] = 5 \cdot [2 - 4] = 5 \cdot (-2) = -10$

d) $\frac{7}{2} \cdot \frac{1}{5} = \frac{7 \cdot 1}{2 \cdot 5} = \frac{7}{10}$

e) $\frac{7}{2} \cdot \frac{(-1)}{3} \cdot \frac{1}{6} = \frac{7 \cdot (-1) \cdot 1}{2 \cdot 3 \cdot 6} = -\frac{7}{36}$

f) $\frac{7}{2} : \frac{1}{5} = \frac{7 \cdot 5}{2 \cdot 1} = \frac{35}{2}$

g) $\frac{3}{2} : \frac{1}{2} + \frac{3}{2} \cdot \frac{1}{2} = \frac{3 \cdot 2}{2 \cdot 1} + \frac{3 \cdot 1}{2 \cdot 2} = \frac{6}{2} + \frac{3}{4} = 3 + \frac{3}{4} =$
 $= \frac{12 + 3}{4} = \frac{15}{4}$

h) $\frac{60}{20} + \frac{1}{10} - \frac{2}{30} = 3 + \frac{1}{10} - \frac{1}{15} =$
 $= \frac{3 \cdot 30}{30} + \frac{1 \cdot 3}{30} - \frac{1 \cdot 2}{30} = \frac{90}{30} + \frac{3}{30} - \frac{2}{30} =$
 $= \frac{90 + 3 - 2}{30} = \frac{91}{30}$

i) $1 + \frac{1}{2} + \frac{1}{6} = \frac{6 + 3 + 1}{6} = \frac{10}{6} = \frac{5}{3}$

j) $2^3 \cdot 2^4 = 2^{3+4} = 2^7$

k) $2^3 : 2^2 = 2^{3-2} = 2^1 = 2$

l) $\frac{2^3 \cdot 2^5}{2^2} = \frac{2^8}{2^2} = 2^8 : 2^2 = 2^{8-2} = 2^6$

m) $\left((2^3)^7 \right)^5 = 2^{3 \cdot 7 \cdot 5} = 2^{105}$

n) $\left(2^{\frac{1}{3}} \right)^3 = 2^{\frac{1}{3} \cdot 3} = 2^1 = 2$

o) $x + 5 = 10 \Rightarrow x = 10 - 5 \Rightarrow x = 5$

p) $x - 5 = 10 \Rightarrow x = 10 + 5 \Rightarrow x = 15$

q) $3x = 5 \Rightarrow x = \frac{5}{3}$

r) $4x + 5 = 3 \Rightarrow 4x = 3 - 5 \Rightarrow 4x = -2 \Rightarrow x = -\frac{2}{4} \Rightarrow$
 $\Rightarrow x = -\frac{1}{2}$

s) $4x - 5 = 3 \Rightarrow 4x = 3 + 5 \Rightarrow 4x = 8 \Rightarrow x = \frac{8}{4} \Rightarrow$
 $\Rightarrow x = 2$

PROBLEMA COMODÍN

$$\begin{pmatrix} 5 & 3 \\ -4 & 1 \end{pmatrix} - \begin{pmatrix} 2 & 0 \\ 9 & -4 \end{pmatrix} = \begin{pmatrix} 5-2 & 3-0 \\ -4-9 & 1-(-4) \end{pmatrix} =$$

$$= \begin{pmatrix} 3 & 3 \\ -13 & 5 \end{pmatrix}$$