

$$I) -7-15+8+10-9-6+11=$$

$$II) 7 \cdot (28-6 \cdot 4) - (3 \cdot 4 + 4) : 8 + 2 =$$

$$III) [(-5) - (-3)] - [-(-4) - (-7)] =$$

$$IV) -(-2) \cdot (-(-3)^2) \cdot (-(-(-4)^0)) \cdot (-1) =$$

$$V) \frac{2}{3} + \frac{5}{6} + \frac{7}{15} =$$

$$VI) \frac{12}{15} - 3 + \frac{40}{12} - \frac{10}{8} =$$

$$VII) \frac{5}{2} + 2 \cdot \left(7 - \frac{1}{3} \right) - 8 =$$

$$VIII) 3 + \frac{1}{4} \left[\frac{1}{2} + 3 \cdot \left(4 - \frac{2}{3} \right) \right] =$$

$$IX) (5^8 \cdot 5^4) : (5^2)^5 =$$

$$X) \left[2^9 : (2^3)^2 \right] \cdot 5^3 =$$

$$Bonus) \left[(m^8 : m^6)^2 \right]^5 =$$

$$I) -7-15+8+10-9-6+11=+(8+10+11)-(7+15+9+6)=29-37=-8$$

$$II) 7(28-6\cdot 4)-(3\cdot 4+4):8+2=7(28-24)-(12+4):8+2=7\cdot 4-16:8+2=28-2+2=28$$

$$III) [(-5)-(-3)]-[-(-4)-(-7)]=[-5+3]-[4+7]=-2+11=9$$

$$IV) -(-2)\left(-(-3)^2\right)\left(-(-(-4)^0)\right)\cdot(-1)=2\cdot(-9)\cdot(-1)=18$$

$$V) \frac{2}{3}+\frac{5}{6}+\frac{7}{15}=\frac{10\cdot 2}{30}+\frac{5\cdot 5}{30}+\frac{7\cdot 2}{30}=\frac{20}{30}+\frac{25}{30}+\frac{14}{30}=\frac{20+25+14}{30}=\frac{69}{30}=\frac{23}{10}$$

$$VI) \frac{12}{15}-3+\frac{40}{12}-\frac{10}{8}=\frac{4}{5}-3+\frac{10}{3}-\frac{5}{4}=\frac{4\cdot 12}{60}-\frac{3\cdot 60}{60}+\frac{10\cdot 20}{60}-\frac{5\cdot 15}{60}=\frac{48}{60}-\frac{180}{60}+\frac{200}{60}-\frac{75}{60}=\frac{-7}{60}$$

Simplificamos antes del mcm

$$VII) \frac{5}{2}+2\left(7-\frac{1}{3}\right)-8=\frac{5}{2}+2\left(\frac{7\cdot 3}{3}-\frac{1}{3}\right)-8=\frac{5}{2}+2\left(\frac{21}{3}-\frac{1}{3}\right)-8=\frac{5}{2}+2\left(\frac{20}{3}\right)-8=\frac{5}{2}+\frac{40}{3}-8=$$

$$=\frac{3\cdot 5}{6}+\frac{2\cdot 40}{6}-\frac{6\cdot 8}{6}=\frac{15}{6}+\frac{80}{6}-\frac{48}{6}=\frac{47}{6}$$

$$VIII) 3+\frac{1}{4}\left[\frac{1}{2}+3\left(4-\frac{2}{3}\right)\right]=3+\frac{1}{4}\left[\frac{1}{2}+3\left(\frac{4\cdot 3}{3}-\frac{2}{3}\right)\right]=3+\frac{1}{4}\left[\frac{1}{2}+3\left(\frac{12}{3}-\frac{2}{3}\right)\right]=3+\frac{1}{4}\left[\frac{1}{2}+3\left(\frac{10}{3}\right)\right]=$$

$$=3+\frac{1}{4}\left[\frac{1}{2}+10\right]=3+\frac{1}{4}\left[\frac{1}{2}+\frac{20}{2}\right]=3+\frac{1}{4}\left[\frac{21}{2}\right]=3+\frac{21}{8}=\frac{24}{8}+\frac{21}{8}=\frac{45}{8}$$

$$IX) (5^8\cdot 5^4):(5^2)^5=5^{8+4}:5^{2\cdot 5}=5^{12}:5^{10}=5^{12-10}=5^2$$

$$X) [2^9:(2^3)^2]\cdot 5^3=(2^9:2^{3\cdot 2})\cdot 5^3=(2^9:2^6)\cdot 5^3=2^{9-6}\cdot 5^3=2^3\cdot 5^3=(2\cdot 5)^3=10^3$$

$$Bonus) [(m^8:m^6)^2]^5=[(m^{8-6})^2]^5=[(m^2)^2]^5=[m^{2\cdot 2}]^5=(m^4)^5=m^{4\cdot 5}=m^{20}$$