

Segundo Medio (Módulo 7)

$$1.- \frac{10^{-2} \cdot 10^4 \cdot 10^5 \cdot 10^{-1}}{10^2 \cdot 10^3}$$

Suma de exponente $\frac{10^6}{10^5} = 10^1 = \boxed{10}$

$$2.- \frac{2^3 \cdot 2^{-4} \cdot 2^{-6}}{2^{-2} \cdot 2^{-3}}$$

$$\frac{2^{-7}}{2^{-5}} = 2^{-7-(-5)} = 2^{-2} = \boxed{\frac{1}{4}}$$

$$3.- \frac{(3^{-5} \cdot 6^{-5}) \div 18^{-3}}{9^{-2}}$$

$$\frac{18^{-5} \div 18^{-3}}{9^{-2}} = \frac{18^{-2}}{9^{-2}} = 2^{-2} = \boxed{\frac{1}{4}}$$

$$5.- \left[(6^{-2} \cdot 3^{-2} \cdot 5^{-2}) \div 9^{-2} \right] \cdot 10^3$$

$$\left(90^{-2} \div 9^{-2} \right) \cdot 10^3 = 10^{-2} \cdot 10^3 = 10^1 = \boxed{10}$$

$$7.- \frac{(6^{-5} \cdot 6^3 \cdot 6^6 \cdot 6^2) \div 2^6}{27^{-9} \div 9^{-9}}$$

$$\frac{6^{-6} \div 2^6}{3^{-9}}$$

$$\frac{3^{-6}}{3^{-9}} = 3^{-6-(-9)} = 3^3 = \boxed{27}$$

$$4.- \frac{((-432)^9 \div 27^9) \div (-16)^6}{((-288)^{11} \div 18^{11}) \div (-16)^9}$$

$$\frac{(-16)^9 \div (-16)^6}{(-16)^{11} \div (-16)^9}$$

$$\frac{(-16)^3}{(-16)^2} = (-16)^1 = \boxed{-16}$$

$$6.- \frac{\left(\left(\frac{1}{9} \right)^{12} \div \left(\frac{1}{9} \right)^{16} \right)^{-3} \div \left(\frac{1}{9} \right)^{14}}{\left(\left(\frac{27}{243} \right)^{-4} \right)^{-2} \cdot \left(\frac{1}{9} \right)^{-12}}$$

Simplifica $\frac{\left(\left(\frac{1}{9} \right)^{-4} \right)^{-3} \div \left(\frac{1}{9} \right)^{14}}{\left(\frac{1}{9} \right)^8 \cdot \left(\frac{1}{9} \right)^{-12}}$

$$\frac{\left(\frac{1}{9} \right)^{-2}}{\left(\frac{1}{9} \right)^{-4}} = \left(\frac{1}{9} \right)^2 = \boxed{\frac{1}{81}}$$