

Correction de la ~~feuille~~ feuille n° 7

Exercice 1 a) $10^4 \times 10^{-3} = 10^{4+(-3)} = 10^1$

b) $10^{-4} \times 10^3 = 10^{-4+3} = 10^{-1}$

c) $10^{-4} \times 10^{-3} = 10^{-4+(-3)} = 10^{-7}$

d) $10^5 \times 10^{-5} = 10^{5+(-5)} = 10^0$

e) $10^{12} \times 10^{-3} = 10^{12+(-3)} = 10^9$

f) $10 \times 10^{-5} = 10^{\boxed{1}} \times 10^{-5} = 10^{1+(-5)} = 10^{-4}$

Exercice 2 a) $\frac{10^7}{10^6} = 10^{7-6} = 10^1$

b) $\frac{10^3}{10^9} = 10^{3-9} = 10^{-6}$

c) $\frac{10^{-5}}{10^4} = 10^{-5-4} = 10^{-9}$

d) $\frac{10^5}{10^{-4}} = 10^{5-(-4)} = 10^9$

Exercice 3

a) $(10^{-3})^2 = 10^{-3 \times 2} = 10^{-6}$

b) $(10^4)^{-3} = 10^{4 \times (-3)} = 10^{-12}$

c) $(10^{-1})^5 = 10^{-1 \times 5} = 10^{-5}$

d) $(10^{-1})^{-8} = 10^{-1 \times (-8)} = 10^8$

e) $(10^{10})^{-10} = 10^{10 \times (-10)} = 10^{-100}$

f) $(10^{-5})^0 = 10^{-5 \times 0} = 10^0$