

Exercice 1

$$A = 5^3 \times 5^7 = 5^{3+7} = \boxed{5^{10}}$$

$$I = 5^{-7} \times \frac{1}{5^5} = 5^{-7} \times 5^{-5} = 5^{-7-5} = \boxed{5^{-12}}$$

$$J = \frac{1}{2^{-3}} \times \frac{2^4}{2^2} = 2^4 \times 2^{-2} \times 2^3 = 2^{(4+3-2)} = \boxed{2^5}$$

$$K = (2^5)^2 - (2^2)^5 = 2^{5 \times 2} - 2^{2 \times 5} = 2^{10} - 2^{10} = \boxed{0}$$