

حل التمرين 21

$$A = \frac{a^{-1} \times b^{3 \times 3} \times a^{-5 \times 3} \times b^8}{b^{-2} \times a^{-3 \times 3} \times b^{5 \times 3} \times a^6} \quad (1)$$

$$A = \frac{a^{-1} \times b^9 \times a^{-15} \times b^8}{b^{-2} \times a^{-9} \times b^{15} \times a^6}$$

$$A = \frac{a^{-1} \times a^{-15} \times b^9 \times b^8}{a^{-9} \times a^6 \times b^{-2} \times b^{15}}$$

$$A = a^{-1-15+9-6} \times b^{9+8+2-15}$$

$$\boxed{A = a^{-13} \times b^4} \quad (2) \text{ نضع } a = 10^{-1} \text{ و } b = 0,001$$

$$A = (10^{-1})^{-13} (0,001)^4 \quad \text{حساب قيمة } A$$

$$A = 10^{(-1) \times (-13)} \times 10^{-12}$$

$$\boxed{A = 10} \text{ أي } A = 10^{13} \times 10^{-12}$$