

# Fiche

$$10 = 10^1$$

$$100 = 10^2$$

⋮

$$\underbrace{1000 \dots 000}_{n \text{ z\u00e9ros}} = 10^n$$

$n$  z\u00e9ros

$$10^0 = 1$$

$$\hookrightarrow a^0 = 1$$

$$\frac{1}{10} = 0,1 = 10^{-1}$$

$$\frac{1}{100} = 0,01 = 10^{-2}$$

$$\frac{1}{10^2} \vdots$$

$$\frac{1}{\underbrace{100\dots000}_{n \text{ z\u00e9ros}}} = \underbrace{0,0\dots0}_{n \text{ z\u00e9ros}}1 = 10^{-n}$$

$\frac{1}{10^n}$

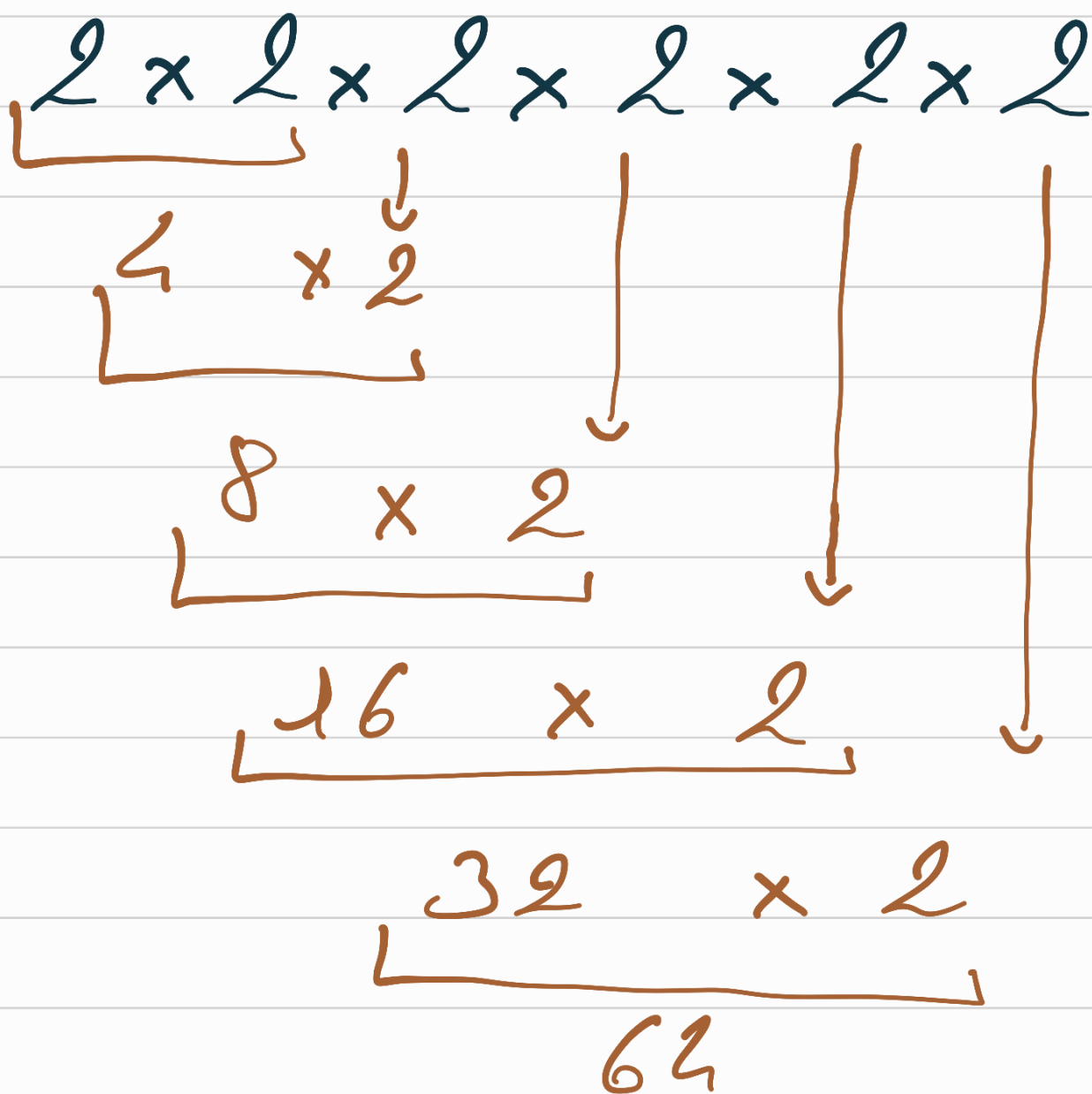
$$10^n \times 10^m = 10^{n+m}$$

$$\frac{1}{10^n} = 10^{-n}$$

$$\frac{10^n}{10^m} = 10^{n-m}$$

$$(10^n)^m = 10^{n \times m}$$

$2 \times 3$   
↙ ↘  
facteurs      facteurs



$$(-6)^3 = -6 \times (-6) \times (-6)$$

$$= - \underbrace{6 \times 6}_{36} \times 6$$

$$\begin{array}{r} 3 \\ 36 \\ \times 6 \\ \hline 216 \end{array} = -216$$

### exercice 3:

a)  $0,1 = 10^{-1}$

e)  $\frac{1}{10^2} = 10^{-2}$

d)  $\frac{1}{10^4} = 10^{-4}$

## exercice 4:

$$a) 10^5 + 10^{-3}$$

$$= 100\,000 + 0,001$$

$$= 100\,000,001$$

$$\neq 10^2$$

$$b) 10^5 \times 10^{-3} = 10^{5+(-3)}$$
$$= 10^2$$



c)  $\frac{10^{-2}}{10^3} = 10^{-2-3}$   
 $= 10^{-5}$





## exercice 1:

$$10^{-2} = \frac{1}{10^2} = 0,01$$

$$10^{-3} = \frac{1}{10^3} = 0,001$$

$$10^{-1} = \frac{1}{10^1} = 0,1$$

$$10^{-5} = \frac{1}{10^5} = 0,00001$$

## exercice 2:

a)  $10^{-7} = \frac{1}{10^7} = 0,000\,000\,1$

b)  $10^{-9} = \frac{1}{10^9} = 0,000\,000\,001$

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## exercice 5:

a)  $514 \times 10^{-5} = 0,00514$

0,00514

b)  $73,6 \times 10^{-6} = 0,0000736$

000073,6

$$c) 0,48 \times 10^{-1} = 0,048$$

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### exercice 6:

$$a) 49, \times 10^{-3} = 0,049$$

0,049

$$b) 267 \times 10^{-4} = 0,0267$$

0,0267

$$c) 13450 \times 10^{-6} = 0,01345$$

0,013450

## esercizio 7:

a)  $10^{-5} < 0,0186 < 10^{-4}$   
4 cifre

b)  $10^{-5} < 0,00075 < 10^{-4}$   
5 cifre