

Dans ce tableau, toutes les variables a, b, \dots, n, m, \dots sont des nombres entiers strictement positifs.

Propriété	Exemple	Exercice
$a^n = \underbrace{a \times a \times a \times \dots \times a}_{n \text{ fois}}$	$2^5 = 2 \times 2 \times 2 \times 2 \times 2 = 32$	$3^4 = \dots$
$a^0 = 1$	$7^0 = 1$	$5^0 = \dots$
$0^a = 0$	$0^3 = 0$	$0^2 = \dots$
$a^1 = a$	$8^1 = 8$	$9^2 = \dots$
$a^n \times a^m = a^{n+m}$	$4^2 \times 4^3 = 4^{2+3} = 4^5$	$3^2 \times 3^3 = \dots$
$a^n \times b^n = (a \times b)^n$	$2^3 \times 5^3 = (2 \times 5)^3 = 15^3$	$4^2 \times 7^2 = \dots$
$\frac{1}{a^n} = a^{-n}$	$\frac{1}{5^2} = 5^{-2}$	$\frac{1}{7^3} = \dots$
$a^n = \frac{1}{a^{-n}}$	$4^6 = \frac{1}{4^{-6}}$	$5^9 = \dots$
$\frac{1}{a^n} = a^{-n}$	$\frac{1}{10^2} = 10^{-2}$	$\frac{1}{5^3} = \dots$
$\frac{a^n}{b^n} = \left(\frac{a}{b}\right)^n$	$\frac{10^6}{2^6} = \left(\frac{10}{2}\right)^6 = 5^6$	$\frac{8^9}{6^9} = \dots$
$\frac{a^n}{a^m} = a^{n-m} = \frac{1}{a^{m-n}}$	$\frac{7^4}{7^3} = 7^{4-3} = 7^1 = 7$	$\frac{2^{10}}{2^8} = \dots$
$(a^n)^m = a^{n \times m}$	$(4^7)^2 = 4^{7 \times 2} = 4^{14}$	$(2^5)^3 = \dots$