

PRAVILA ZA RAČUNANJE S POTENCAMI

	Pravilo	Primer
1	$a^n = \underbrace{a \cdot a \cdot a \cdot \dots \cdot a \cdot a}_{n\text{-krat}}$	$3^5 = 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3$
2	$a^1 = a$	$9^1 = 9$
3	$1^n = 1$	$1^{26} = 1$
4	$a^0 = 1, \quad a \neq 0, \quad 0^0 = \text{ni definirano}$	$5^0 = 1$
5	$0^n = 0, \quad n \in \mathbb{N}$	$0^8 = 0$
6	$a^m \cdot a^n = a^{m+n}$	$5^8 \cdot 5^9 = 5^{8+9} = 5^{17}$
7	$a^m : a^n = \frac{a^m}{a^n} = a^{m-n}$	$7^{11} : 7^8 = \frac{7^{11}}{7^8} = 7^{11-8} = 7^3$
8	$(a^m)^n = a^{m \cdot n}$	$(2^3)^4 = 2^{3 \cdot 4} = 2^{12}$
9	$(a \cdot b)^n = a^n \cdot b^n$	$(5 \cdot 4)^3 = 5^3 \cdot 4^3$
	$a^n \cdot b^n = (a \cdot b)^n$	$2^6 \cdot 5^6 = (2 \cdot 5)^6 = 10^6 = 1000000$
10	$\left(\frac{a}{b}\right)^n = \frac{a^n}{b^n}$	$\left(\frac{3}{8}\right)^2 = \frac{3^2}{8^2} = \frac{9}{64}$
	$\frac{a^n}{b^n} = \left(\frac{a}{b}\right)^n$	$\frac{15^4}{5^4} = \left(\frac{15}{5}\right)^4 = 3^4$
11	$a^{-n} = \frac{1}{a^n}$	$5^{-3} = \frac{1}{5^3} = \frac{1}{125}$
12	$\left(\frac{a}{b}\right)^{-n} = \left(\frac{b}{a}\right)^n$	$\left(\frac{2}{7}\right)^{-4} = \left(\frac{7}{2}\right)^4$
13	$(-a)^n = \begin{cases} a^n, & n = \text{sodo} \\ -a^n, & n = \text{liho} \end{cases}$	$(-3)^2 = 3^2 = 9$ $(-3)^3 = -3^3 = -27$
14	Število končnih ničel se pomnoži z eksponentom	$5 \underbrace{00}_{2 \text{ ničli}}^3 = 125 \underbrace{000000}_{2 \cdot 3 = 6 \text{ ničel}}$
15	Število decimalk se pomnoži z eksponentom	$0, \underbrace{002}_3^4 = 0, \underbrace{00000000000016}_{3 \cdot 4 = 12 \text{ decimalk}}$
16	Velika števila	$53900000 = \underbrace{5,39}_{0 < a < 1} \cdot 10^7$
17	Mala števila	$0,000043 = \underbrace{4,3}_{0 < a < 1} \cdot 10^{-5}$