



### Regras das potências

- $a^0 = 1$
- $a^x \times a^y = a^{x+y}$
- $\frac{a^x}{a^y} = a^{x-y}$
- $a^x \times b^x = (a \times b)^x$
- $\frac{a^x}{b^x} = \left(\frac{a}{b}\right)^x$
- $(a^x)^y = a^{x \times y}$
- $a^{-x} = \frac{1}{a^x}$

### Exemplos:

1.  $\left(\frac{1}{2}\right)^0 = 1$
2.  $5^{\frac{3}{2}} \times 5^1 = 5^{\left(\frac{3}{2}+1\right)} = 5^{\frac{5}{2}}$
3.  $5^{\frac{3}{2}} : 5^1 = 5^{\left(\frac{3}{2}-1\right)} = 5^{\frac{1}{2}}$
4.  $2^{\frac{1}{3}} \times 3^{\frac{1}{3}} = (2 \times 3)^{\frac{1}{3}} = 6^{\frac{1}{3}}$
5.  $2^{\frac{1}{3}} : 3^{\frac{1}{3}} = (2 : 3)^{\frac{1}{3}} = \left(\frac{2}{3}\right)^{\frac{1}{3}}$
6.  $(4^2)^{\frac{1}{5}} = 4^{\left(2 \times \frac{1}{5}\right)} = 4^{\frac{2}{5}}$
7.  $\left(\frac{2}{5}\right)^{-3} = \left(\frac{5}{2}\right)^3 = \frac{5^3}{2^3}$