

## Séries de referência

$$\exp(x) = \sum_{n \geq 0} \frac{x^n}{n!}$$

$$\cos(x) = \sum_{n \geq 0} \frac{(-1)^n}{(2n)!} x^{2n}$$

$$\operatorname{sen}(x) = \sum_{n \geq 0} \frac{(-1)^n}{(2n+1)!} x^{2n+1}$$

$$\frac{1}{1-x} = \sum_{n \geq 0} x^n$$

$$\ln(1-x) = - \sum_{n \geq 1} \frac{x^n}{n}$$

$$\ln(1+x) = \sum_{n \geq 1} \frac{(-1)^{n+1}}{n} x^n$$

$$\frac{1}{1+x^2} = \sum_{n \geq 0} (-1)^n x^{2n}$$

$$\arctan(x) = \sum_{n \geq 0} \frac{(-1)^n}{2n+1} x^{2n+1}$$