

Common Maclaurin series:

$$\frac{1}{1-x} = \sum_{n=0}^{\infty} x^n \quad R = 1$$

$$e^x = \sum_{n=0}^{\infty} \frac{x^n}{n!} \quad R = \infty$$

$$\sin x = \sum_{n=0}^{\infty} (-1)^n \frac{x^{2n+1}}{(2n+1)!} \quad R = \infty$$

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

$$\arctan(x) = \tan^{-1} x = \sum_{n=0}^{\infty} (-1)^n \frac{x^{2n+1}}{2n+1} \quad R = 1$$

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