- $e^x = \displaystyle\sum_{n=0}^{+\infty} \frac{1}{n!} x^n = 1 + x + \frac{x^2}{2!} + \frac{x^3}{3!} + \dots \quad R = +\infty$
- $e^{-x} = \displaystyle\sum_{n=0}^{+\infty} \frac{(-1)^n}{n!} x^n = 1 - x + \frac{x^2}{2!} - \frac{x^3}{3!} + \dots \quad R = +\infty$
- $\operatorname{ch} x = \displaystyle\sum_{n=0}^{+\infty} \frac{1}{(2n)!} x^{2n} = 1 + \frac{x^2}{2!} + \frac{x^4}{4!} + \dots \quad R = +\infty$
- $\operatorname{sh} x = \displaystyle\sum_{n=0}^{+\infty} \frac{1}{(2n+1)!} x^{2n+1} = x + \frac{x^3}{3!} + \frac{x^5}{5!} + \dots \quad R = +\infty$
- $\cos x = \displaystyle\sum_{n=0}^{+\infty} \frac{(-1)^n}{(2n)!} x^{2n} = 1 - \frac{x^2}{2!} + \frac{x^4}{4!} - \dots \quad R = +\infty$
- $\sin x = \displaystyle\sum_{n=0}^{+\infty} \frac{(-1)^n}{(2n+1)!} x^{2n+1} = x - \frac{x^3}{3!} + \frac{x^5}{5!} - \dots \quad R = +\infty$

- $\dfrac{1}{1-x} = \displaystyle\sum_{n=0}^{+\infty} x^n = 1 + x + x^2 + x^3 + \dots \quad R = 1$
- $\dfrac{1}{1+x} = \displaystyle\sum_{n=0}^{+\infty} (-1)^n x^n = 1 - x + x^2 - x^3 + \dots \quad R = 1$
- $\dfrac{1}{x-a} = \dots = \dots \quad R = |a|$
- $\dfrac{1}{(x-a)^p} = \dots = \dots \quad R = |a|$

- $\ln(1+x) = \displaystyle\sum_{n=1}^{+\infty} \frac{(-1)^{n-1}}{n} x^n = \frac{x}{1} - \frac{x^2}{2} + \frac{x^3}{3} - \frac{x^4}{4} + \dots \quad R = 1$
- $\ln(1-x) = \displaystyle\sum_{n=1}^{+\infty} \frac{-1}{n} x^n = -\frac{x}{1} - \frac{x^2}{2} - \frac{x^3}{3} - \frac{x^4}{4} - \dots \quad R = 1$
- $\ln\left(\dfrac{1+x}{1-x}\right) = \displaystyle\sum_{n=0}^{+\infty} \frac{2}{2n+1} x^{2n+1} = 2x + \frac{2x^3}{3} + \frac{2x^5}{5} + \frac{2x^7}{7} + \dots \quad R = 1$
- $\operatorname{Arctan} x = \displaystyle\sum_{n=0}^{+\infty} \frac{(-1)^n}{2n+1} x^{2n+1} = x - \frac{x^3}{3} + \frac{x^5}{5} - \frac{x^7}{7} + \dots \quad R = 1$

- $(1+x)^\alpha = 1 + \displaystyle\sum_{n=1}^{+\infty} \frac{\alpha(\alpha-1)\dots(\alpha-n+1)}{n!} x^n \quad R = \begin{cases} 1 \text{ si } \alpha \notin \mathbb{N} \\ +\infty \text{ si } \alpha \in \mathbb{N} \end{cases}$
- $\sqrt{1-x} = 1 - \dfrac{x}{2} - \dfrac{x^2}{8} - \dfrac{5x^4}{128} - \dots - \dfrac{1 \times 3 \times \dots (2n-3)}{2 \times 4 \times \dots \times 2n} x^n - \dots \quad R = 1$
- $\dfrac{1}{\sqrt{1-x}} = 1 + \dfrac{x}{2} + \dfrac{x^2}{8} + \dfrac{5x^4}{128} + \dots + \dfrac{1 \times 3 \times \dots (2n-3)}{2 \times 4 \times \dots \times 2n} x^n + \dots \quad R = 1$