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Principali polinomi di Taylor in $x = 0$, o polinomi di Mc Laurin

$$e^x = 1 + x + \frac{x^2}{2} + \frac{x^3}{3!} + \frac{x^4}{4!} + \frac{x^5}{5!} + o(x^5)$$

$$\log(1+x) = x - \frac{x^2}{2} + \frac{x^3}{3} - \frac{x^4}{4} + \frac{x^5}{5} + o(x^5)$$

$$\sin x = x - \frac{x^3}{3!} + \frac{x^5}{5!} + o(x^6)$$

$$\cos x = 1 - \frac{x^2}{2} + \frac{x^4}{4!} + o(x^5)$$

$$\tan x = x + \frac{x^3}{3} + \frac{2x^5}{15} + o(x^5)$$

$$\arctan x = x - \frac{x^3}{3} + \frac{x^5}{5} + o(x^5)$$

$$\arcsin x = x + \frac{x^3}{6} + \frac{3}{40}x^5 + o(x^5)$$

$$(1+x)^r = 1 + rx + \frac{r(r-1)}{2}x^2 + \frac{r(r-1)(r-2)}{3!}x^3 + o(x^3)$$

$$\frac{1}{1+x} = 1 - x + x^2 - x^3 + o(x^3) \qquad (\text{scegliendo } r = -1)$$

$$\sqrt{1+x} = 1 + \frac{x}{2} - \frac{x^2}{8} + \frac{1}{16}x^3 + o(x^3) \qquad (\text{scegliendo } r = \frac{1}{2})$$

$$\sinh x = x + \frac{x^3}{3!} + \frac{x^5}{5!} + o(x^6)$$

$$\cosh x = 1 + \frac{x^2}{2} + \frac{x^4}{4!} + o(x^5).$$