$$\cot x = \sum_{n \geqslant 0} \frac{B_{2n}}{(2n)!} x^{2n-1}$$

$$^x\mathfrak{c} = \boxed{-x^2/4}_{1/2}$$

$$\frac{^x\mathfrak{s}}{x} = \boxed{-x^2/4}_{3/2}$$

$$\frac{^x\mathfrak{s}}{x} = {}_{1/2|\,1/2}\boxed{x^2}_{3/2} = \sum_n^{\mathbb{N}} \frac{\Gamma_{n+\,1/2}}{n!\,(2n+1)} x^{2n}$$

$$\frac{^x\mathfrak{t}}{x} = {}_{1/2|1}\boxed{-x^2}_{3/2}$$

$$\frac{^{1+z}\mathfrak{c}}{z} = {}_{1|1}\boxed{-z}_{2}$$