

# <https://GitHub.Com/Nazgand/NazgandMathBook>

## Taylor Series

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When the series converges,

$$f(x) = \sum_{k=0}^{\infty} \frac{(x-a)^k \left( \frac{\partial^k}{\partial z^k} f(z) \right) \Big|_{z \rightarrow a}}{k!} = \sum_{k=0}^{\infty} \frac{(x-a)^k f^{(k)}(a)}{k!} \quad (0.1)$$