Numerics
A Taylor Series of a function $f(x)$ centered at $x = c$ is

$$T(x) = \sum_{n=0}^{\infty} a_n(x - c)^n = a_0 + a_1(x - c) + a_2(x - c)^2 + \cdots$$

The coefficients of the Taylor Series are $a_n = \frac{f^{(n)}(c)}{n!}$

If the Taylor series converges to $f(x)$, the associated Taylor polynomials can be used to compute good approximations.

**Goal:** Use Taylor polynomials to get better and better approximations of numbers such as $e$, $e^{0.5}$, $\cos(1)$, etc., using only the operations $\text{+}$, $\text{-}$, $\times$, $\div$ on a calculator.