

# Euler Number(e)

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## Introduction

Euler Number is one of the unique irrational number, and important among other popular numbers such as pi, discovered in early 18th century named after the Swiss mathematician Leonhard Euler. 'e' is considered as the base of natural logarithm and its natural log value is equal to one, and is often confused with Euler's constant. The first few digits are: **2.7182818284590452353602874713527**

It is considered as the limit of  $\left(1 + \frac{1}{n}\right)^n$  as n increases. This expression led to the foundation of compound interest known as Napier's Constant. e is considered to be highly beneficial for continuously evolving processes as it is derived as the base of growth rate. It is commonly used in calculating probability in Bernoulli trials, Derangements and especially calculus.

## User Stories

### 0.1 User Story 1

As a research assistant, I want to calculate software utilization growth/decay rate so that I can estimate the value of the software created

Constraints: Usability, Performance

Acceptance Criteria

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### 0.2 User Story 2

As a research assistant, I want to calculate software utilization growth/decay rate so that I can estimate the value of the software created

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