

Hello World!

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Nov 30 2024

Introduction

1. Let's begin with a formula $e^{i\pi} + 1 = 0$.

2. A more complicated formula

$$e = \lim_{n \rightarrow \infty} \left(1 + \frac{1}{n}\right)^n = \lim_{n \rightarrow \infty} \frac{n}{\text{sqrt}[n]n!}$$

3. Polynomial Runtimes The are favorable r.t's ;

$$o(n), o(\log n)$$

4. Ineffiecent / Bad Runtimes (Opposite Poly)

$$O(n^2)$$

5. Linear Time

$$O(n)$$

6. Constant Time

$$O(1)$$

7. Logarithmic, Quasi(sub)-Logarithmic Time

$$O(\log n)$$

8. Another formula

$$e = \sum_{n=0}^{\infty} \frac{1}{n!}.$$

9. We can also use continued fractions

$$e = 2 + \frac{1}{1 + \frac{1}{2 + \frac{1}{3 + \ddots}}}$$

More Math and Code Tutorial

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