Hello latex!

Marajul haque

jan 2025

introduction

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

1. As a **limit**

$$e = \lim_{n \to \infty} \left(1 + \frac{1}{n}\right)^n = \lim_{n \to \infty} \frac{n}{\sqrt{n!}}$$

2. We can do <u>another</u>:

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

3. As a *continued* fractions

$$e = 2 + \cfrac{1}{1 + \cfrac{1}{2 + \cfrac{1}{3 + \cfrac{2}{4 + \cfrac{3}{5 + \ddots}}}}}$$

1 More formulas

$$\int_a^b f(x)dx$$

$$\iiint f(x,y,z)dxdydz$$

$$\iint f(x)dxdy$$

$$\vec{v} =< v_1, v_2, v_3 >$$

$$\vec{v} = \vec{v_1} + \vec{v_2} + \vec{v_3}$$

$$\vec{v} \cdot \vec{w}$$

$$\vec{a} \times \vec{b}$$

$$\begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{bmatrix}$$