

Named Constants

Pi

$\pi \approx 3.14159265358979\dots$

$$\pi = \int_{-\infty}^{+\infty} \frac{1}{x^2 + 1} dx$$

$$\frac{\pi^2}{6} = \sum_{k=1}^{\infty} \frac{1}{k^2}$$

e

$e \approx 2.71828182845905\dots$

Golden Ratio

$\phi \approx 1.61803398874989\dots$

$$\frac{1}{\phi} = 1 - \phi$$

$$\phi = \frac{1 + \sqrt{5}}{2}$$

$$\begin{aligned}\phi &= \lim_{n \rightarrow \infty} \frac{u_n}{u_{n-1}} \\ &= \lim \left\{ \frac{1}{1}, \frac{2}{1}, \frac{3}{2}, \frac{5}{3}, \frac{8}{5}, \frac{13}{8}, \dots \right\}\end{aligned}$$