Komplexe Zahlen

Allgemeines e-Funktion f.a. $x \in \mathbb{R}$: $e^x := \sum_{v=0}^{\infty} \frac{1}{v!} x^v$

$$=1+x+\frac{1}{2}x^2+\frac{1}{6}x^3+\frac{1}{24}x^4+\frac{1}{120}x^5+\dots$$

Grad = Radiant $360^{\circ} = 2 \pi$

 $=|_{x=ix}\cos(x)_{v=0,2,4,...}+i\sin(x)_{v=1,3,5,...}$ $e^{i\phi}$ $\cos(\phi)$ Re $\cos(\phi)$

$$i^{2} := -1$$

$$\exp\{i\phi\} = \cos(\phi) + i\sin(\phi)$$