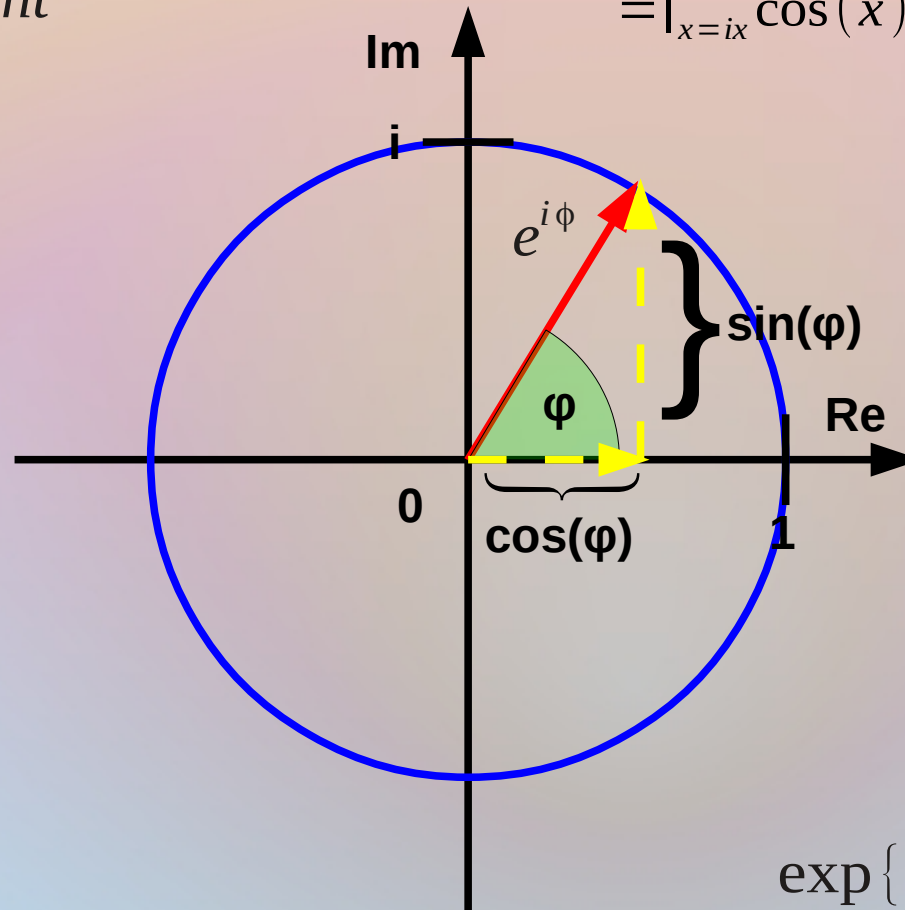


Komplexe Zahlen

Allgemeines e-Funktion f.a. $x \in \mathbb{R}$:

$$e^x := \sum_{v=0}^{\infty} \frac{1}{v!} x^v$$
$$= 1 + x + \frac{1}{2} x^2 + \frac{1}{6} x^3 + \frac{1}{24} x^4 + \frac{1}{120} x^5 + \dots$$
$$= \big|_{x=ix} \cos(x)_{v=0,2,4,\dots} + i \sin(x)_{v=1,3,5,\dots}$$

Grad = Radian
 $360^\circ = 2\pi$



$$i^2 := -1$$
$$\exp\{i\phi\} = \cos(\phi) + i \sin(\phi)$$