

	0	$\pi/6$	$\pi/4$	$\pi/3$	$\pi/2$
<b>sin</b>	0	$\frac{\sqrt{1}}{2} = \frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{4}}{2} = 1$
<b>cos</b>	$\frac{\sqrt{4}}{2} = 1$	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{1}}{2} = \frac{1}{2}$	0
<b>tg</b>	0	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	-
<b>cotg</b>	-	$\sqrt{3}$	1	$\frac{\sqrt{3}}{3}$	0

$$\cosh z = \frac{e^z + e^{-z}}{2} \quad \sinh z = \frac{e^z - e^{-z}}{2} \quad \cos z = \frac{e^{iz} + e^{-iz}}{2} \quad \sin z = \frac{e^{iz} - e^{-iz}}{2i}$$

$$|z|^n = (\cos(n\varphi) + i \cdot \sin(n\varphi)) \quad z_k = \sqrt[n]{|z|} \cdot \left( \cos\left(\frac{\varphi + 2k\pi}{n}\right) + i \cdot \sin\left(\frac{\varphi + 2k\pi}{n}\right) \right)$$

$$e^{i\varphi} = (\cos \varphi + i \cdot \sin \varphi) \quad e^{\alpha + i\beta} = e^\alpha (\cos \beta + i \cdot \sin \beta)$$

$$(X)^Y = e^{Y \cdot \ln(X)} \quad \ln(z) = \ln|z| + i \cdot \arg(z)$$

$$\lim_{n \rightarrow \infty} \sqrt[n]{n} = 1 \quad \lim_{n \rightarrow \infty} \left(1 + \frac{1}{n}\right)^n = e \quad \lim_{n \rightarrow 0} \frac{\sin(n)}{n} = 1$$

$$\lim_{n \rightarrow \infty} \frac{a_{n+1}}{a_n} = r \quad \lim_{n \rightarrow \infty} \sqrt[n]{a_n} = r$$

$0 \leq r < 1$  – rad konverguje

$r > 1$  – rad diverguje

$r = 1$  – nič to nehovorí o rade

$$\sum_{n=1}^{\infty} \frac{1}{n^k} \quad 0 < k \leq 1 - \text{diverguje}; \quad k > 1 - \text{konverguje}$$

$$e^{lnx} = x \quad \sin(i) = i \cdot \sinh(1) \quad \cos(i) = \cosh(1)$$

$$\sin(x \pm y) = \sin(x) \cos(y) \pm \cos(x) \sin(y) \quad \cos(x \pm y) = \cos(x) \cos(y) \mp \sin(x) \sin(y)$$

$$f'(a) = \frac{\partial u}{\partial x}(a) + i \cdot \frac{\partial v}{\partial x}(a) = \frac{\partial v}{\partial y}(a) + i \cdot \frac{\partial u}{\partial y}(a)$$

$$e^z = \sum_{n=0}^{\infty} \frac{z^n}{n!} \quad |z| < \infty$$

$$\sin(z) = \sum_{n=0}^{\infty} (-1)^n \frac{z^{2n+1}}{(2n+1)!} \quad |z| < \infty$$

$$\cos(z) = \sum_{n=0}^{\infty} (-1)^n \frac{z^{2n}}{(2n)!} \quad |z| < \infty$$

$$\frac{\partial u}{\partial x} = \frac{\partial v}{\partial y}$$

$$\frac{\partial u}{\partial y} = -\frac{\partial v}{\partial x}$$

$$\frac{1}{1-z} = \sum_{n=0}^{\infty} z^n \quad |z| < 1$$

$$\frac{1}{1-z}^2 = \sum_{n=0}^{\infty} n \cdot z^{n-1} \quad |z| < 1$$