

**Razvoji osnovnih funkcij v Taylorjevo vrsto:**

$$e^x = 1 + x + \cdots + \frac{x^n}{n!} + \cdots \quad x \in R$$

$$\sin x = x - \frac{x^3}{3!} + \cdots + (-1)^n \frac{x^{2n+1}}{(2n+1)!} + \cdots \quad x \in R$$

$$\cos x = 1 - \frac{x^2}{2!} + \cdots + (-1)^n \frac{x^{2n}}{(2n)!} + \cdots \quad x \in R$$

$$(1+x)^\alpha = 1 + \alpha x + \cdots + \binom{\alpha}{n} x^n + \cdots \quad |x| < 1$$

*Binomski simbol:*

$$\binom{\alpha}{n} = \frac{\alpha(\alpha+1)\cdots(\alpha-n+1)}{n!}$$

*Konvergenčni polmer:*

$$R = \lim_{n \rightarrow \infty} \left| \frac{a_n}{a_{n+1}} \right|$$