

Račun s ∞

- $\frac{1}{\infty} = 0$
- $\frac{1}{0} = \infty$
- $\infty + \infty = \infty$
- $-\infty - \infty = -\infty$
- $\infty \cdot \infty = \cdot$
- $\infty \cdot (-\infty) = -\infty$
- $a \cdot \infty = \begin{cases} -\infty, & a < 0 \\ +\infty, & a \geq 0 \end{cases}$

Neodređeni izrazi

- $\infty - \infty, 0 \cdot \infty, \frac{\infty}{\infty}, \frac{0}{0}, 0^\infty, \infty^\infty, 0^0, 1^\infty$

Neki važniji limesi

- $\lim_{x \rightarrow \infty} a^x = \begin{cases} 0, & a < 1 \\ 1, & a = 1 \\ \infty, & a > 1 \end{cases}$
- $\lim_{x \rightarrow \infty} \sqrt[x]{x} = \lim_{x \rightarrow \infty} x^{\frac{1}{x}} = 1$
- $\lim_{x \rightarrow \infty} \sqrt[x]{a} = \lim_{x \rightarrow \infty} a^{\frac{1}{x}} = 1$
- $\lim_{x \rightarrow 0} \frac{\sin x}{x} = 1$
- $\lim_{x \rightarrow 0} \frac{\cos x - 1}{x} = 0$
- $\lim_{x \rightarrow \infty} \left(1 + \frac{k}{x}\right)^x = e^k$
- $\lim_{x \rightarrow \infty} \left(1 + \frac{1}{x}\right)^x = e$
- $\lim_{x \rightarrow 0} (1 + kx)^{\frac{1}{x}} = e^k$
- $\lim_{x \rightarrow 0} (1 + x)^{\frac{1}{x}} = e$

- $\lim_{x \rightarrow 0} \frac{e^x - 1}{x} = 1$

- $\lim_{x \rightarrow 0} \frac{\ln(1+x)}{x} = 1$

Aritmetički niz

- $a_{n+1} = a_n + d$
- $a_n = a_1 + (n-1)d$
- $a_n = \frac{a_{n-1} + a_{n+1}}{2}$
- $S_n = \frac{n}{2}(a_1 + a_n)$

Geometrijski niz

- $a_{n+1} = a_n q$
- $a_n = a_1 q^{n-1}$
- $a_n = \sqrt{a_{n-1} a_{n+1}}$
- $S_n = a_1 \frac{q^n - 1}{q - 1}$

Geometrijski red

- $\lim_{n \rightarrow \infty} S_n = \frac{a_1}{1-q}, |q| < 1$

Napomena : Ovo nije službeni podsjetnik, i ne smijete ga koristiti na ispitu!