Taylorova řada funkce

$$f(x) = \begin{cases} \exp\left(-\frac{1}{x^2}\right) & x \neq 0 \\ 0 & x = 0 \end{cases}$$

v nule:

$$0 + 0 \cdot x + 0x^2 + \dots = \sum_{k=0}^{\infty} 0 \cdot x^k = 0$$

Závěr $f(x) = T(x)$ pouze pro $x = 0$

pro $x \neq 0$ je $T(x) = 0$

$f(x) > 0$

$x \to 0^-$

$$\frac{-3x^{-4}}{\ln(x^{-2})(-2x^{-3})} = \frac{+3}{2\ln(x^{-2}) \cdot x} = \frac{3x^{-1}}{2\ln(x^{-2})}$$

$\ln(x^{-2}) \to \infty$, $x \to 0$, "$\frac{\infty}{\infty}$"

$$\frac{x^{-4}}{x^{-3}} = \frac{1}{x}$$

$x \to 0 \quad \frac{1}{x^2} \to +\infty \quad \ln\left(\frac{1}{x^2}\right) \to +\infty$

L'H:

$$\frac{-3x^{-2}}{2\ln(x^{-2}) \cdot (-2x^{-3})} = \frac{3x}{4\ln(x^{-2})} \to 0$$

$x \to 0$, $\ln(x^{-2}) \to +\infty$

$$\frac{x^{-2}}{x^{-3}} =$$