

Domácí cvičení 3.týden

Spočtěte limity

(a)

$$\lim_{x \rightarrow 2} \frac{x^2 - 3x + 2}{x^2 - 2x}$$

(b)

$$\lim_{x \rightarrow -\infty} \frac{x^6 + 7x^4 - 40}{1 - x - 5x^7}$$

(c)

$$\lim_{x \rightarrow \infty} \frac{x^3 + x^2 - 4}{2x^3 + 11}$$

(d)

$$\lim_{x \rightarrow \infty} \frac{\sqrt{x+2} - \sqrt{2}}{x}$$

(e)

$$\lim_{x \rightarrow 0} \frac{1 - \cos x}{x}$$

(f)

$$\lim_{x \rightarrow 1} \left(\frac{1}{x^2 - 1} - \frac{2}{x^4 - 1} \right)$$

(g)

$$\lim_{x \rightarrow \infty} \frac{\sqrt{x^2 + 1}}{x}$$

(h)

$$\lim_{x \rightarrow \infty} \sqrt{x-3} - \sqrt{x}$$

(i)

$$\lim_{x \rightarrow 1} \frac{\operatorname{tg}(x-1)}{\sqrt{x}-1}$$