Výpočet limity typu $\left\|\dfrac{k}{0}\right\|$

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$$\lim_{x \to 2} \frac{x}{x-2}$$

$$\lim_{x \to 2} \frac{x}{x-2} = \left\| \frac{2}{0} \right\|$$

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$$\lim_{x \to 2^-} \frac{x}{x-2}$$

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$$\lim_{x \to 2^-} \frac{x}{x-2} = \left\| \frac{2}{0^-} \right\| = -\infty$$

$$\lim_{x \to 2} \frac{x}{x-2} = \left\| \frac{2}{0} \right\|$$

$$\lim_{x \to 2^-} \frac{x}{x-2} = \left\| \frac{2}{0^-} \right\| = -\infty \quad \text{a} \quad \lim_{x \to 2^+} \frac{x}{x-2}$$

$$\lim_{x \to 2} \frac{x}{x-2} = \left\| \frac{2}{0} \right\|$$

$$\lim_{x \to 2^-} \frac{x}{x-2} = \left\| \frac{2}{0^-} \right\| = -\infty \quad \text{a} \quad \lim_{x \to 2^+} \frac{x}{x-2} = \left\| \frac{2}{0^+} \right\|$$

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$$\lim_{x \to 2^-} \frac{x}{x-2} = \left\| \frac{2}{0^-} \right\| = -\infty \quad \text{a} \quad \lim_{x \to 2^+} \frac{x}{x-2} = \left\| \frac{2}{0^+} \right\| = \infty$$

$$\lim_{x \to 2} \frac{x}{x-2} = \left\| \frac{2}{0} \right\|$$

$$\lim_{x \to 2^-} \frac{x}{x-2} = \left\| \frac{2}{0^-} \right\| = -\infty \quad \text{a} \quad \lim_{x \to 2^+} \frac{x}{x-2} = \left\| \frac{2}{0^+} \right\| = \infty$$

$$\Rightarrow \quad \lim_{x \to 2} \frac{x}{x-2} \text{ neexistuje.}$$

$$\lim_{x \to 0} \frac{1}{x^2}$$

$$\lim_{x \to 0} \frac{1}{x^2} = \left\| \frac{1}{0} \right\|$$

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$$\lim_{x \to 0^+} \frac{1}{x^2}$$

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$$\lim_{x \to 0^+} \frac{1}{x^2} = \left\| \frac{1}{0^+} \right\| = \infty \quad \text{a} \quad \lim_{x \to 0^-} \frac{1}{x^2}$$

$$\lim_{x \to 0} \frac{1}{x^2} = \left\| \frac{1}{0} \right\|$$

$$\lim_{x \to 0^+} \frac{1}{x^2} = \left\| \frac{1}{0^+} \right\| = \infty \quad \text{a} \quad \lim_{x \to 0^-} \frac{1}{x^2} = \left\| \frac{1}{0^+} \right\|$$

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$$\lim_{x \to 0^+} \frac{1}{x^2} = \left\| \frac{1}{0^+} \right\| = \infty \quad \text{a} \quad \lim_{x \to 0^-} \frac{1}{x^2} = \left\| \frac{1}{0^+} \right\| = \infty$$

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$$\lim_{x \to 0^+} \frac{1}{x^2} = \left\| \frac{1}{0^+} \right\| = \infty \quad \text{a} \quad \lim_{x \to 0^-} \frac{1}{x^2} = \left\| \frac{1}{0^+} \right\| = \infty$$

$$\Rightarrow \quad \lim_{x \to 0} \frac{1}{x^2} = \infty$$