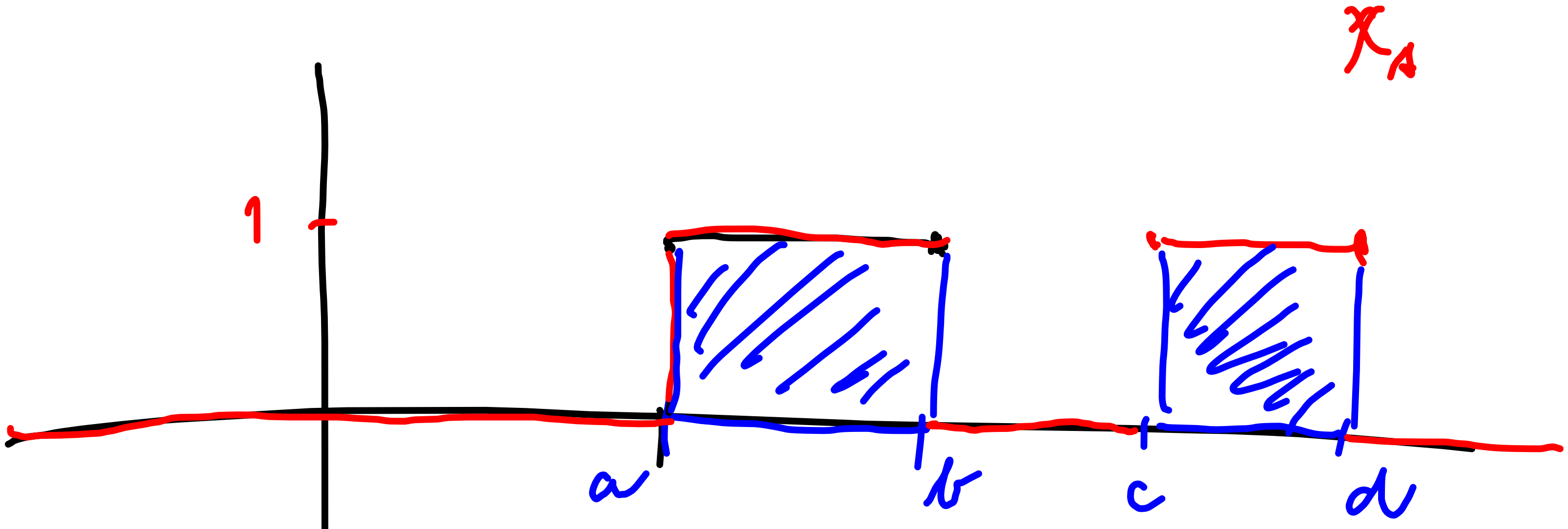
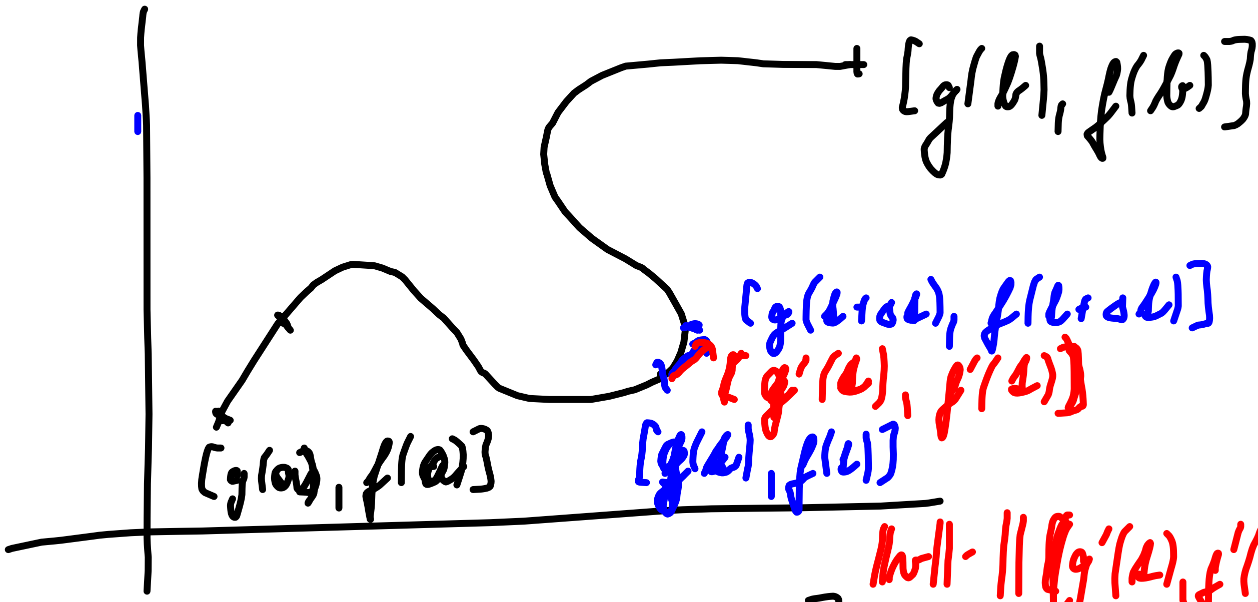
$$\frac{c_1}{(x-a)} + \frac{c_2}{(x-a)^2} + \dots + \frac{c_n}{(x-a)^n}$$



$$A = (a, b\rangle \cup \langle c, d\rangle$$

$$\int_{-\infty}^{\infty} \chi_A = \int_a^b 1\,dx + \int_c^d 1\,dx = (b-a) + (c-d)$$

$$\sum_{i \in \mathbb{Q}} \chi_{\{i\}} = \chi_{\mathbb{Q}}$$



$$F(t) = [g(t), f(t)]$$

$$\|v\| = \|[g'(t), f'(t)]\| = \sqrt{(g'(t))^2 + (f'(t))^2}$$

$$\|\Delta s\| = \|v\|\,\Delta t$$

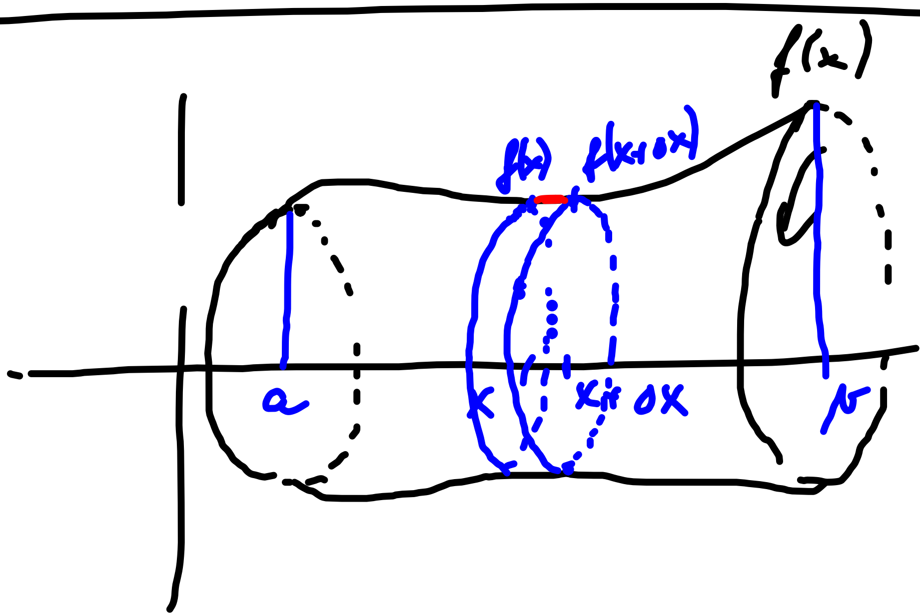
$$= \sqrt{(g'(t))^2 + (f'(t))^2}\;\Delta t$$

$$l = \int_a^b \sqrt{}$$

Param. vyjádření grafu fce:

$$[x, f(x)]$$

$$l = \int_a^b \sqrt{1+f'(x)^2}\, dx$$

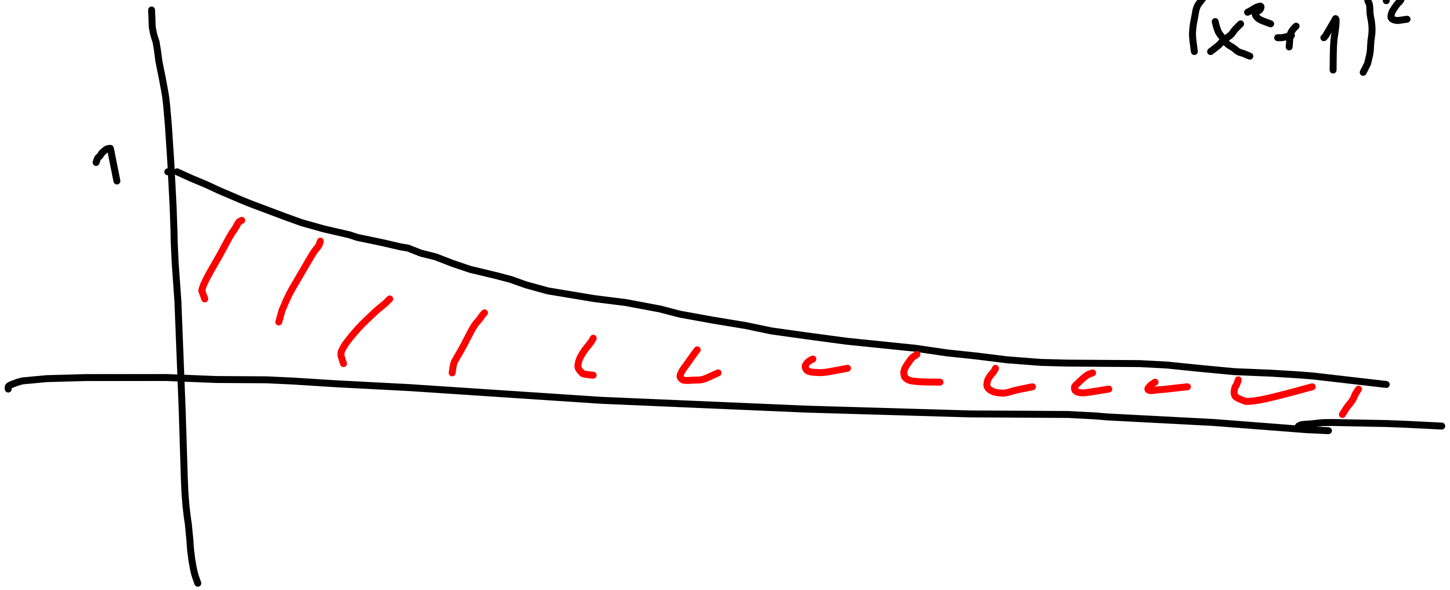


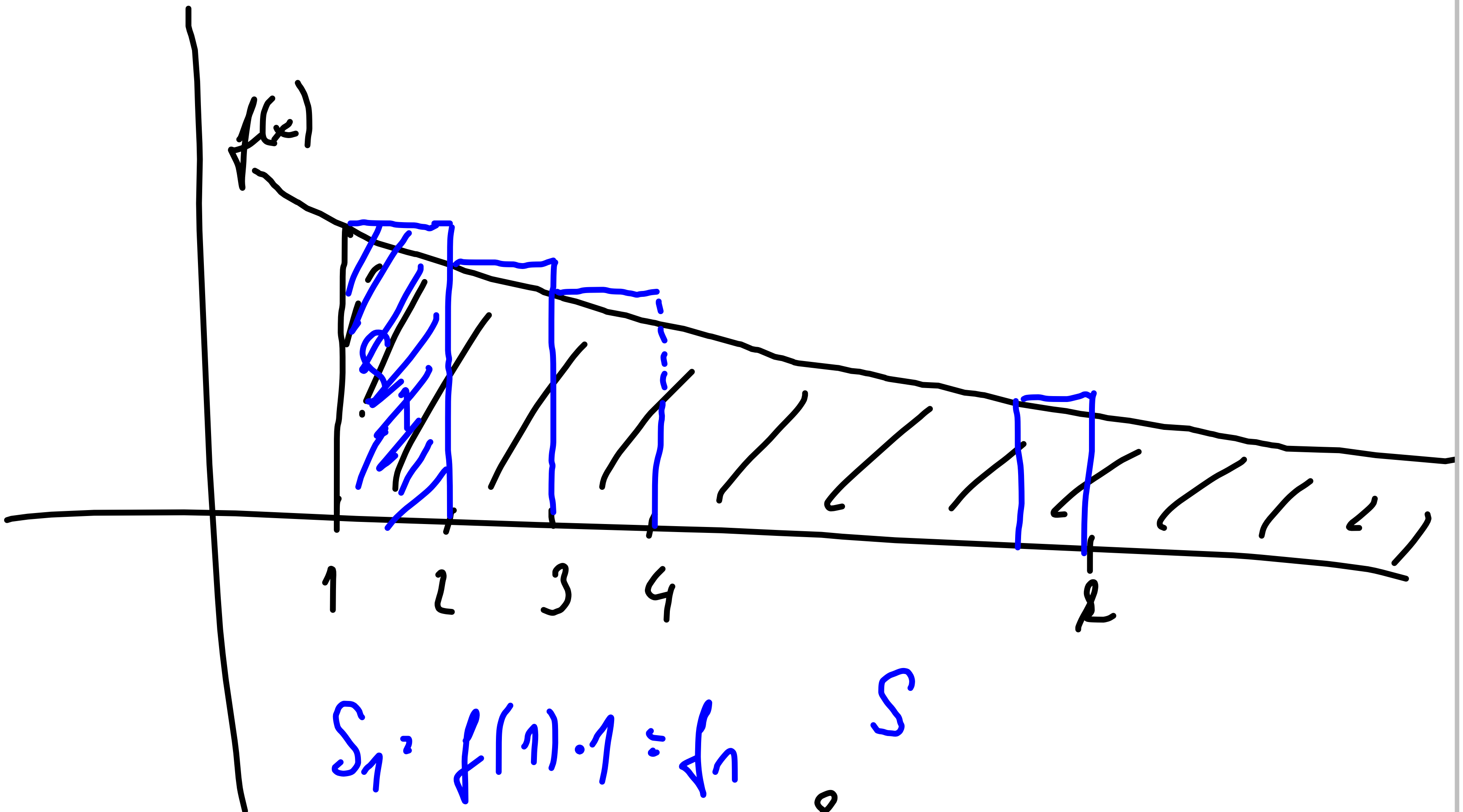
$$\pi (r_1 + r_2) v$$

$$v = \sqrt{1+f'(x)^2}\, \cancel{dx}$$

$$r_1 =$$

$$\frac{x}{(x^2+1)^2}$$





$S_1 = f(1)\cdot 1 = f_1$

$$\int_1^\infty f(x)\,dx = \lim_{k\to\infty}\int_1^k f(x)\,dx \le \lim_{k\to\infty} s_k <$$

$$\sum_{i=1}^{\infty} f(i) \text{ diverguje} \Rightarrow \sum_{i=2}^{\infty} f(i) \text{ diverguje}$$