Věta o dělení se zbytkem:

v $\mathbb{Z}$: $\forall a \in \mathbb{Z}, b \in \mathbb{N}$ $\exists!$ (jednoznačně určené) $q, r \in \mathbb{Z}$:

$a = b \cdot q + r$, $\boxed{0 \le r < b}$ ← Euklidův algoritmus

v $\mathbb{R}[x]$: $a(x) = b(x) \cdot q(x) + r(x)$, $r(x) = 0$ nebo $\boxed{\mathrm{st}\, r < \mathrm{st}\, b}$

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$f(x) = a_n x^n + \dots + a_1 x + a_0$ $\quad a_i \in \mathbb{R}$

$f(x_i) = y_i$ $\quad i = 0, \dots, n$

$a_n x_0^n + \dots + a_1 x_0 + a_0 \cdot 1 = y_0$

$\vdots$

$a_n x_n^n + \dots + a_1 x_n + a_0 \cdot 1 = y_n$

neznámé $a_0, \dots, a_n$; dáno $x_0, \dots, x_n$; $y_0, \dots, y_n$

fund. Lagrangeův polynom $l_i(x)$ splňuje:

$l_i(x_i) = 1$, $l_i(x_j) = 0$ pro $i \neq j$

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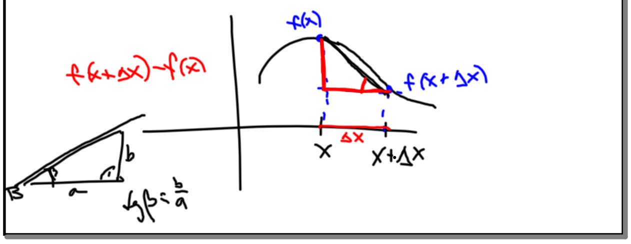
f funkce, x bod

$x + \Delta x$ posun

$$\frac{f(x+\Delta x) - f(x)}{\Delta x}$$



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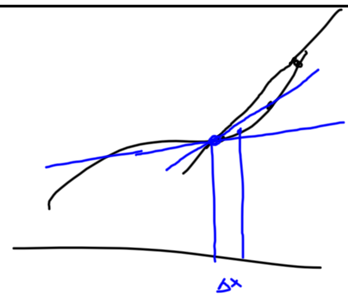

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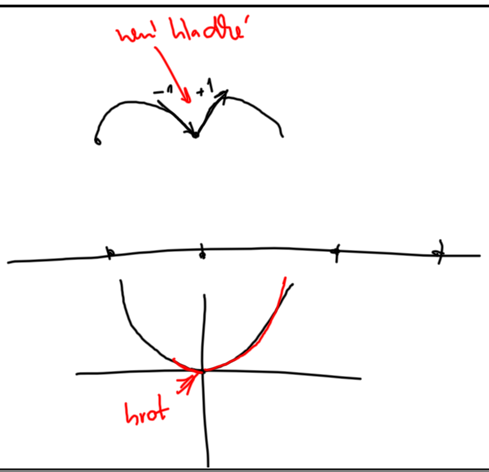

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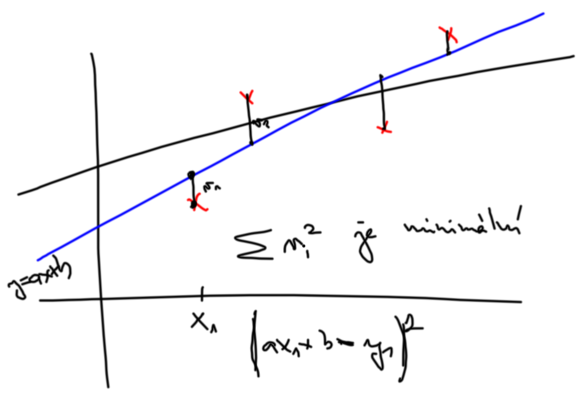

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