1) $(i_0, i_1, \ldots, i_n)$ dowolna permutacja $(0,1,2,\ldots,n)$

$$f[x_{i_0}, x_{i_1}, \ldots, x_{i_n}] = f[x_0, x_1, \ldots, x_n]$$

np.

$$f[x_1, x_0] = \frac{f(x_0) - f(x_1)}{x_0 - x_1} = \frac{f(x_1) - f(x_0)}{x_1 - x_0}$$

$$= f[x_0, x_1]$$

Podobnie np

$$f[x_1, x_0, x_2] = f[x_2, x_0, x_1]$$

$$= f[x_0, x_1, x_2] = \cdots$$

2) $f[x_0, x_0] = \lim_{x_1 \to x_0} f[x_0, x_1] = f'(x_0)$

$$\underbrace{f[x_0, x_0, \ldots, x_0]}_{n \text{ razy}} = \frac{1}{n!} f^{(n)}(x_0)$$

$$f[x_0, x_1, x_0] = f[x_0, x_0, x_1] = \frac{f[x_0, x_1] - f[x_0, x_0]}{x_1 - x_0}$$

$$= \frac{f[x_0, x_1] - f'(x_0)}{x_1 - x_0}$$