Exercises

16.22 [1F7]Difficulty:* . Given $x_0 < x_1 < x_2 < \ldots < x_n$ and given real numbers $a_{i,h}$ (with $i, h = 0, \ldots n$) show that there is a polynomial $p(x)$ such that $p^{(i)}(x_h) = a_{i,h}$.

This result is the starting point of the Hermit method of polynomial interpolation, see [49].

Solution 1. *[1F8]*