Spline

Input: Số nguyên n, n + 1 điểm cho trước $x_0, x_1, \dots, x_n$ $(x_0 < x_1 < \cdots < x_n)$ và các giá trị tương ứng $y_0, y_1, \dots, y_n$.

Output $a_j, b_j, c_j, d_j, j = 0, 1, 2, \dots, n-1$

- For $i = 0,1,2, \dots, n$
  - $a_i = y_i;$
- For $i = 0, 1, 2, \dots, n-1$
  - $x_{i+1} - x_i \to h_i;$
- For $i = 1, 2, \dots, n-1$
  - $\frac{3}{h_i}(a_{i+1} - a_i) - \frac{3}{h_{i-1}}(a_i - a_{i-1}) \to \alpha_i;$
- $1 \to l_0;$
- $0 \to \mu_0;$
- $0 \to z_0;$
- For $i = 1, 2, \dots, n-1$
  - $2(x_{i+1} - x_{i-1}) - h_{i-1}\mu_{i-1} \to l_i;$
  - ${h_i}/{l_i} \to \mu_i;$
  - $\frac{\alpha_i - h_{i-1}z_{i-1}}{l_i} \to z_i;$
- $1 \to l_n;$
- $0 \to z_n;$
- $0 \to c_n;$
- For $j = n-1, n-2, \dots, 0$
  - $z_j - \mu_j c_{j+1} \to c_j;$
  - $\frac{a_{j+1} - a_j}{h_j} - h_j(c_{j+1} + 2c_j)/3 \to b_j;$
  - $(c_{j+1} - c_j)/(3h_j) \to d_j;$
- Return $a, b, c, d;$