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$$S_0(x) = \frac{a_0}{6h}(x_1 - x)^3 + \frac{a_1}{6h}(x - x_0)^3 + b_0(x_1 - x) + c_0(x - x_0)$$

$$= -4x^3 + b_0(1 - x) + c_0x$$

$$b_0 = \frac{f_0}{h} - \frac{a_0 h}{6}, \quad c_0 = \frac{f_1}{h} - \frac{a_1 h}{6}$$

$$b_0 = 0$$

$$c_0 = 2 + 1 = 3$$

$$S_0(x) = -4x^3 + 3x$$

$$S_1(x) = \frac{a_1}{6h}(x_2 - x)^3 + \frac{a_2}{6h}(x - x_1)^3 + b_1(x_2 - x) + c_1(x - x_1)$$

$$= -4(1 - x)^3 + b_1(1 - x) + c_1(x - 1)$$

$$b_1 = \frac{f_1}{h} - \frac{a_1 h}{6}$$

$$= 2 + 1 = 3$$

$$S_1(x) = -4(1 - x)^3 + 3(1 - x)$$