2.5 mamy $S(x_k) = ax_k + b$

x_k	0	10	20	30	40	80	90	95
$S(x_k)$	68.0	67.1	66.4	65.6	64.6	61.8	61.0	60.0

Układamy metodą z iloczynami skalarnymi

$f_1 = 1 \quad f_2 = x$

$$\begin{bmatrix} \langle 1,1\rangle & \langle 1,x\rangle \\ \langle x,1\rangle & \langle x,x\rangle \end{bmatrix} \begin{bmatrix} b \\ a \end{bmatrix} = \begin{bmatrix} \langle 1,S\rangle \\ \langle x,S\rangle \end{bmatrix}$$

$$\langle 1,1\rangle = \sum_{i=0}^{7} 1(x_i) \circ 1(x_i) = 8$$

$$\langle 1,x\rangle = \langle x,1\rangle = \sum_{i=0}^{7} x_i \circ 1 = 365$$

$$\langle x,x\rangle = \sum_{i=0}^{7} x_i \circ x_i = 26525$$

$$\langle 1,S\rangle = \sum_{i=0}^{7} S(x_i) = 514{,}5$$

$$\langle x,S\rangle = \sum_{i=0}^{7} x_i \circ S(x_i) = 22685$$

$b = 67{,}96$

$b = \frac{514{,}5 - 365a}{8}$

$8b + 365a = 514{,}5$

$365b + 26525a = 22685$

$9871{,}875a = -189{,}0625$

$a = -0{,}08$

$23474{,}0625 - 16653{,}125a + 26525a = 22685$