Z 5

$$S = aT + b = a_0 g_0(x_k) + a_1 g_1(x_k)$$

$$E(a_0, a_1) = \sum_{k=0}^{7} \left(y_k - a_0 g_0 - a_1 g_1 \right)^2$$

$$E'(a_i) = 2 \sum_{k=0}^{7} \left(y_k - a_0 g_0 - a_1 g_1 \right) g_i = 0$$

$$\sum_{k=0}^{7} \left(y_k - a_0 g_0 - a_1 g_1 \right) g_i =$$

$$\sum_{k=0}^{7} y_k g_i - a_0 \sum_{k=0}^{7} g_0 g_i - a_1 \sum_{k=0}^{7} g_1 g_i =$$

$$\langle y_k, g_i \rangle - a_0 \langle g_0, g_i \rangle - a_1 \langle g_1, g_i \rangle = 0$$

$$\langle y_k, g_i \rangle = a_0 \langle g_0, g_i \rangle + a_1 \langle g_1, g_i \rangle$$

$$\begin{bmatrix} \langle g_0, g_0 \rangle & \langle g_0, g_1 \rangle \\ \langle g_0, g_1 \rangle & \langle g_1, g_1 \rangle \end{bmatrix} \begin{bmatrix} a_0 \\ a_1 \end{bmatrix} = \begin{bmatrix} \langle y, g_0 \rangle \\ \langle y, g_1 \rangle \end{bmatrix}$$

Wychodzi $a_0 = a \approx -0.07$ $a_1 = b \approx 68$