

$$\sum_k x_k (ax_k + b - y_k) = 0 \rightarrow \textcircled{1}$$

$$\sum_{k=0}^m (ax_k + b - y_k) = 0 \rightarrow \textcircled{2}$$

$$\Rightarrow a \left( \sum_k x_k^2 \right) + b \sum_k x_k = \sum_k x_k y_k \rightarrow \textcircled{3}$$

$$\Rightarrow a \left( \sum_k x_k \right) + b(m+1) = \sum_k y_k \rightarrow \textcircled{4}$$

$x: T_k$	0	10	20	30	40	80
$y: S_k$	68.0	67.1	66.7	64.6	61.8	60.0

$$S_k = S_k(T_k)$$

$$\sum_k x_k^2 = \sum_k T_k^2 = (0^2 + 10^2 + 20^2 + \dots + 80^2)$$

$$26525 a + 365 b = 22685$$

$$365 a + 8 b = 514.5$$

$$a = -0.007993, b = 67.96$$