0.1 Use of calculator, Casio fx-85MS

http://www.casio-europe.com/euro/sc/technical/fx85ms/

Use the data in Tutorial 2, Q2:

i	1	2	3	4	5
x_i	1	6	8	4	6
y_i	3	2	8	4	3

1. STAT mode: MODE CLR [S-VAR] [2] SHIFT
2. Clear previous data: SHIFT MODE CLR [S-SUM] [1] [%] [=]
3. Enter x_i data in STAT mode:
   [S-SUM] [1] M− M [$y\sigma_{n-1}$] [6] M− M ⋯ [$y\sigma_{n-1}$] [6] M− M
4. Output $\overline{x}$, $\sum_i x_i^2$ and s^2:
   - $\overline{x}$: SHIFT [S-VAR] [2] [S-SUM] [1] [%] [=] (5)
   - $\sum_i x_i^2$: SHIFT [S-SUM] [1] [S-SUM] [1] [%] [=] (135)
   - s^2 : SHIFT [S-VAR] [2] [3] [%] [=] [x²] [%] [=] (7)
5. REG, Lin mode: MODE CLR [3] [S-SUM] [1]
6. Enter (x_i, y_i) data in REG, Lin mode:

S-SUM 1 ; Y ’ 3 M− M M+ 6 ; Y ’ S-VAR 2 M− M M+ … 6 ; Y ’ 3 M− M M+

7. Output S_{yy}, $\sum_i x_i y_i$, r, a, b and $\hat{y}|x = 6$:

S_{yy} : SHIFT S-VAR 2 REPLAY 3 % = x^2 % = x 4 % = (22)

$\sum_i x_i y_i$: SHIFT S-SUM 1 REPLAY S-SUM 1 % = (102)

r : SHIFT S-VAR 2 REPLAY REPLAY 3 % = (0.523784926)

a : SHIFT S-VAR 2 REPLAY REPLAY S-SUM 1 % = (1.678571429)

b : SHIFT S-VAR 2 REPLAY REPLAY S-VAR 2 % = (0.464285714)

$\hat{y}|x = 6$: 6 SHIFT S-VAR 2 REPLAY REPLAY REPLAY S-VAR 2 % = (4.464285714)

Note also that:

$\sum_i x_i$: SHIFT S-SUM 1 S-VAR 2 % = (25)

n : SHIFT S-SUM 1 3 % = (5)

$\sum_i y_i^2$: SHIFT S-SUM 1 REPLAY S-SUM 1 % = (102)

$\sum_i y_i$: SHIFT S-SUM 1 REPLAY S-VAR 2 % = (20)