

Here's how to use the Sharp EL 531/Sharp EL 520 calculator. (If you want to use a different calculator then it's up to you to figure out how its features work.)

Part I

Find μ , \bar{x} , σ , σ^2 , s , s^2 for: 1, 4, 6, 8

MODE | 1 | 0

1 | M+

4 | M+

6 | M+

8 | M+

RCL | \bar{x}

$$\bar{x} = 4.75$$

Hit ON/C

to clear the screen

RCL | σx

$$\sigma \approx 2.59$$

σ^2 | =

$$\sigma^2 = 6.6875$$

RCL | $s x$

$$s \approx 2.99$$

s^2 | =

$$s^2 \approx 8.92$$

Note: There is no μ button.

μ is always equal to \bar{x} ,

$$\text{so } \mu = 4.75$$

Part II

Find $\mu, \bar{x}, \sigma, \sigma^2, s, s^2$ for:

X	Freq
1	4
3	7
5	6

MODE 1 0

1 STO 4 MT

3 STO 7 MT

5 STO 6 MT

$\bar{x} \approx 3.24$
 $\mu \approx 3.24$
 $\sigma \approx 1.52$
 $\sigma^2 \approx 2.30$
 $s \approx 1.56$
 $s^2 \approx 2.44$

Recall values as in Part I.

Part III

Linear regression: find r , and regression line

X	Y
1	8
2	9
3	11

RCL b $b=1.5$

MODE 1 1

1 STO 8 MT

2 STO 9 MT

3 STO 11 MT

RCL r

$r \approx 0.98$

RCL a

$a \approx 6.33$

$y = bx + a$

$y = 1.5x + 6.33$
is the least squares
regression line