Statistics

Lecture 6

Feb 19-8:47 AM

Some TI instructions:

1) To clear the Screen [Clear]

2) To quit [2nd] [MODE]

3) To clear all lists.

[2nd] [+] [4:clear all lists] [Enter]

4) To reset all lists:

[STAT] Edit [Enter]

[5:Set up Editor]

Mar 9-11:06 AM

How to Store data in a list:

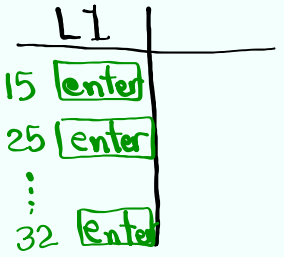
Store the following sample in a list

15 25 18 12 19

26 36 40 10 32

STAT Edit

1: Edit



Let's quit & clear Screen

2nd MODE clear

Mar 11-10:06 AM

How to view a list:

2nd 1 Enter

L1

{15 25 18 }

How to Sort a list:

STAT Edit

2: SortA(

2nd 1 Enter

L1

Let's view L1

2nd 1 Enter

{10 12 15 40}

Min = 10 Max = 40

Range = 40 - 10 = 30

Midrange = $\frac{40+10}{2} = 25$

Estimate $s \approx \frac{\text{Range}}{4} = \frac{30}{4} = 7.5$

Mar 11-10:12 AM

How to find $\bar{x}$ & S:

STAT → CALC

1: 1-Var Stats

With Menu

List: L1

2nd [1]

NO Menu

L1

FreqList: clear

Enter

Calculate

$\bar{x} = 23.3$

$S = S_x = 10.252$

Min = 10

$Q_1 = 15$

Med = 22

$Q_3 = 32$

Max = 40

5-number Summary

$n = 10$

what about S^2?

VARS | 5: Statistics

3: S_x | x^2 | Enter

$S^2 = 105.122$

Convert to fraction

Math | 1: ▸Frac

Enter

$S^2 = \frac{9461}{90}$

Mar 11-10:23 AM

Min = 10

$Q_1 = 15$

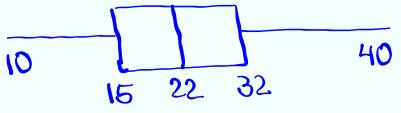
Med = 22

$Q_3 = 32$

Max = 40

5-number Summary

Draw Box Plot



IQR (Inter-Quartile-Range)

$= Q_3 - Q_1$

$= 32 - 15 = 17$

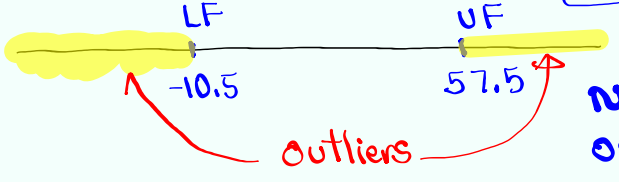
Upper fence $= Q_3 + 1.5(IQR) = 32 + 1.5(17)$

$= 57.5$

Lower fence $= Q_1 - 1.5(IQR)$

$= 15 - 1.5(17)$

$= -10.5$



Mar 11-10:40 AM

Clear all lists, store the following in L1

2nd + 4: Clear All lists Enter

75 82 100 55 80
95 98 70 63 65
100 70 90 68 58
85 75 93 60 65

STAT Edit
1: Edit

L1
75
82
100
⋮
65

quit
2nd Mode

Mar 11-10:49 AM

Sort L1, then view it.

STAT Edit
2: SortA(

2nd 1 Enter
L1

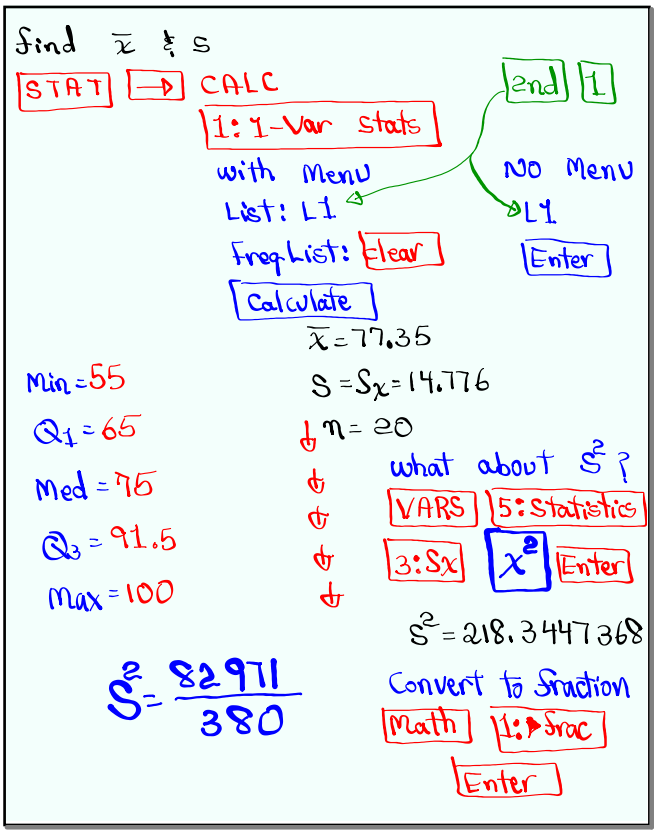
2nd 1 Enter

{55 58 60 63 → → →

Make Stem plot

5	58
6	0358
7	0055
8	025
9	0358
10	00

Mar 11-10:55 AM



Mar 11-11:02 AM