Statistics Spring 2023 Lecture 6



Feb 19-8:47 AM

Consider the Sample below: 1)
$$n = 10$$

2 3 3 4 5

5 5 8 8 12

2) Range = Max - Min = 12-2=10

3) Midrange = $\frac{\text{Max + Min}}{2}$ = $\frac{12+2}{2}$ 4) Mode = $\frac{1}{5}$

5) $\sum x = 2+3+3+4+5+5+5+5+8+8+12 = \frac{1}{5}$

6) $\sum x^2 = 2^2 + 3^2 + 3^2 + 4^2 + 5^2 + 5^2 + 5^2 + 8^2 + 8^2 + 12^2 = \frac{1}{3}$

7) $\overline{x} = \frac{5}{10} = \frac{5}{10} = \frac{5}{5}$ Mean

8) $S^2 = \frac{n \sum x^2 - (\sum x)^2}{n(n-1)} = \frac{10 \cdot 385 - 55^2}{10(10-1)} = \frac{825}{90} = 9.16$

Vortance

9) $S = \sqrt{S^2} = \sqrt{9.167} \approx 3.028$

Feb 14-7:18 AM

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Some TI instructions:

1) To clear the Screen! Clear

2) To quit: 2nd MODE

3) To clear all lists! 2nd + 4: clear All Lists Entry

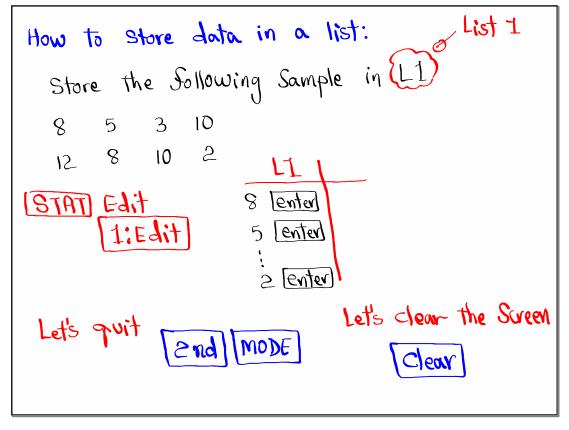
4) To reset all lists: STAT Edit Enter

5: Set up Editor

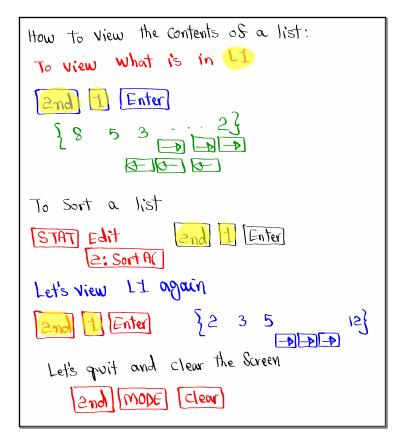
Let's clear the Screen.

Clear
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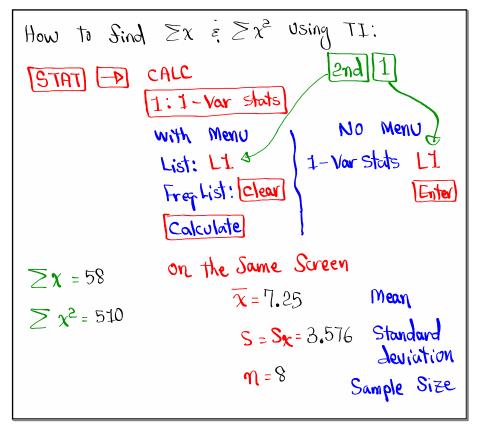
Feb 14-7:28 AM



Feb 14-7:35 AM



Feb 14-7:42 AM



Feb 14-7:51 AM

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How to find S2:

VARS 5: Statistics 3:5x x2 Enter

S2 = 12.78571429

To convert this answer to a reduced Fraction

MATH 1: Frac Enter

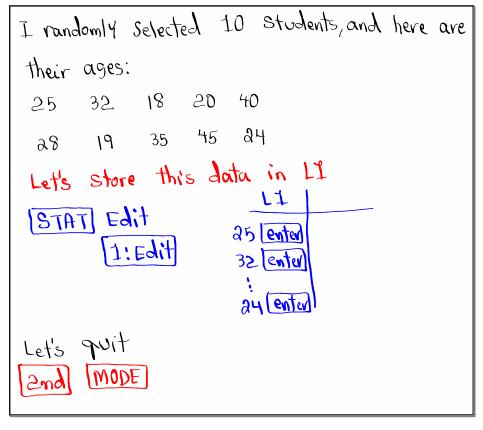
Clear all lists:

2 nd + 4: Clear All Lists Enter

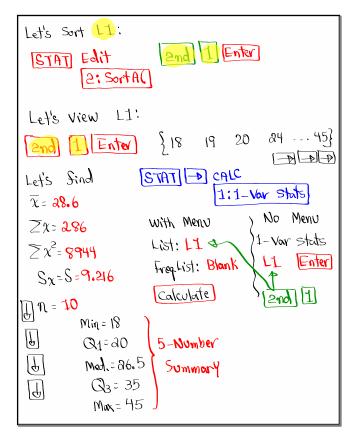
Clear the Screen

clear
```

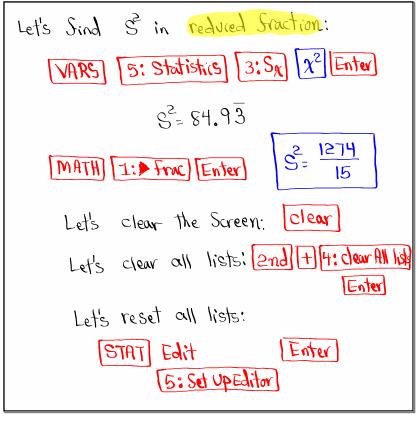
Feb 14-7:59 AM



Feb 14-8:05 AM



Feb 14-8:09 AM



Feb 14-8:23 AM