

Using the TI-86 to Find the Sample Mean and Sample Standard Deviation

Suppose that you want to find the mean and the standard deviation of the data set given below using the TI-86 graphing calculator.

17 15 23 19 14 21 25 29 20 22

First, you will need to enter the data from the Edit sub-menu. Press the 2nd ± (STAT) keys and the F2 (EDIT) key. You may see the following screen:

```

xStat | yStat | ----- 1
-----|-----|
xStat(1) =
┌──┴──┐ ┌──┴──┐ ┌──┴──┐
|  <  |  >  | NAMES | "  | OPS |
└──┬──┘ └──┬──┘ └──┬──┘

```

If you wish to clear any particular column, arrow up to the column name, press CLEAR and then press ENTER.

Enter your data in the xStat column, pressing ENTER after each entry. You should see the following screen after entering the data above:

```

xStat | yStat | ----- 1
21    |      |
25    |      |
29    |      |
20    |      |
22    |      |
-----|-----|
xStat(11) =
┌──┴──┐ ┌──┴──┐ ┌──┴──┐
|  <  |  >  | NAMES | "  | OPS |
└──┬──┘ └──┬──┘ └──┬──┘

```

Exit out of this screen by pressing EXIT. To calculate the descriptive summary measures, press the 2nd ± (STAT) keys, the F1 (CALC) key, and the F1 (OneVa) key. You must now enter the name of the column where your data resides, xStat. To do this, press 2nd = (LIST), F3 (NAMES), F2 (xStat), and ENTER. You should see the following screen:

```

1-Var Stats
x̄=20.5
Σx=205
Σx²=4391
↓Sx=4.57651007
┌──┴──┐ ┌──┴──┐ ┌──┴──┐
|  <  |  >  | NAMES | EDIT | OPS |
└──┬──┘ └──┬──┘ └──┬──┘
| fStat | xStat | yStat |

```

This screen indicates that the sample mean is $\bar{x} = 20.5$ and the sample standard deviation is $s \approx 4.5765$.