# TI-84+ basics

What is it?
- a handheld computer capable of graphing data and functions and doing data collection and analysis (regressions)
- "beaucoup buttons" - plus 2nd and ALPHA modifiers
- programmable - PRGM
- "FLASH" - upgradeable OS and expandable with APPS

Turn it **on**: ON

Turn it **off**: 2nd ON

Adjust screen **contrast**: 2nd ▲ and ▼

**Reset**: [MEM] 2nd + 7: Reset    1: RAM    2: Reset

Establish **Mode** settings: MODE (Degree/Radian, type of graph, display # of digits,etc.)

**Format** graph screen settings: 2nd ZOOM (Axes missing? Coordinates missing?)

**Go Home:** [QUIT] 2nd MODE

**Clear** the HOME screen: on Home screen press CLEAR CLEAR

**Storing** a value in a variable: STO▶

Example: store 5 into the variable A:    5 STO▶ ALPHA MATH (the letter "A" is on the math key)
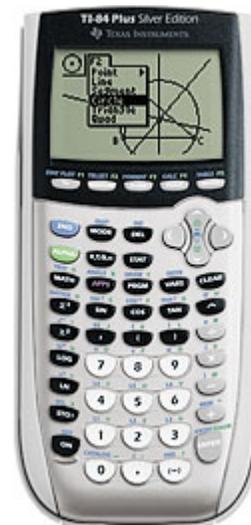
**All functions** in the calculator: [CATALOG] 2nd 0

**Indicators:**

Shape of cursor:

block: overwrite

underscore: insert… press [INS] 2nd DEL  to toggle

up-arrow: 2nd pressed

inverse-A: ALPHA pressed

Worm in upper right: working…

Flasher in upper right: paused (Press ENTER to continue)

**Enter an expression** on HOME screen: type it, then press ENTER to evaluate.

The variable Ans always contains the last answer calculated.

**Retrieve** previous expressions: [ENTRY] 2nd ENTER

**Editing**: use ◄, ►, DEL,  [INS] to edit something

**Graphing**:    Enter functions in the Y= Editor,

Press ZOOM 6 or ZOOM 4 or setup WINDOW by hand (*preferred*!)

TRACE examines (x, y) values on graphs

**Tables**:    first TBLSET: 2nd WINDOW,

then TABLE: 2nd GRAPH

*Tip*: **G-T** (on Mode screen) displays Graph and Table *simultaneously*.

John Hanna

**The big idea:**
   **data collection… entry… "the power of visualization"… analysis… hypothesis…**

## I. To enter Data:

[STAT] 1:Edit

| L1 | L2 | L3 | 3 |
|---|---|---|---|
| 0 | 13.6 | .07356 | |
| 30 | 13.52 | .07396 | |
| 60 | 13.45 | .07436 | |
| 90 | 13.38 | .07476 | |
| 120 | 13.3 | .07517 | |
| 150 | 13.23 | .07558 | |
| ------ | ------ | ------ | |

L3(7) =

## II. to make a Stat Plot:

[Stat Plot][2nd][Y=]
[ZOOM] 9: ZoomStat
[TRACE]…

Plot1  Plot2  Plot3
On  Off
Type:
Xlist:L1
Ylist:L3
Mark: □  +  .

P1:L1,L3

X=60          Y=.07436
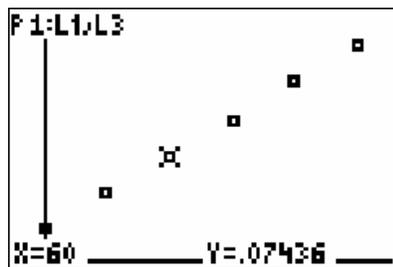
## III. To graph a function:

[Y=]    enter the function

Press          to erase a function

Press          on the = sign to turn
off a function.

Press          on the "\" symbol to change the style of the graph.

Plot1  Plot2  Plot3
\Y1◼.0000134666
6667X+.07356
\Y2=◼
\Y3=
\Y4=
\Y5=
\Y6=

then press [GRAPH]                    and [TRACE].

X=75          Y=.07526853

P1:L1,L3

X=60          Y=.07436
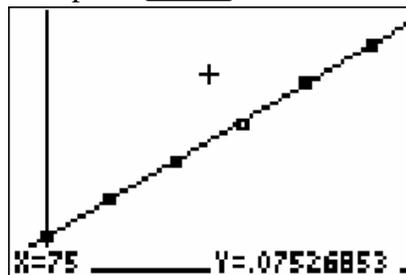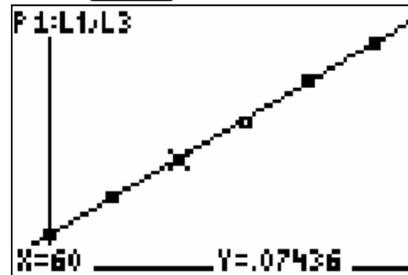
## While tracing…

Up and Down arrows move among plots and functions
Left and right arrows move along data or graph

John Hanna

**The main applications in the calculator:**
**HOME**     the calculation screen. Pressing [Quit] always gets you here.

```
2^50
        1.125899907ᴇ15
Ans/5000
        2.251799814ᴇ11
Ans+3^5
        2.251799816ᴇ11
```

**WINDOW**     for setting up the viewing window for graphing

```
WINDOW
 Xmin=■10
 Xmax=10
 Xscl=1
 Ymin=-10
 Ymax=10
 Yscl=1
 Xres=1
```

**Y=**     the function editor for entering functions (y=f(x), also polar, sequences, and parametric)

```
Plot1  Plot2  Plot3
\Y1■X^+2X-5
\Y2=■
\Y3=
\Y4=
\Y5=
\Y6=
\Y7=
```

John Hanna

**GRAPH**   for viewing the graphs of data and functions
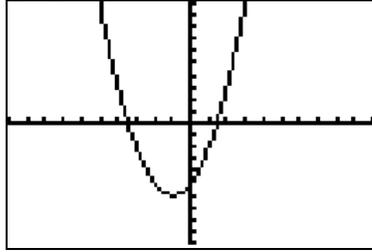


**Table**      for viewing the values of a function in numeric form



**Stat Edit…**        for entering data into lists



**PRGM Editor**          for writing programs
**Finance…**          for TVM solving

John Hanna