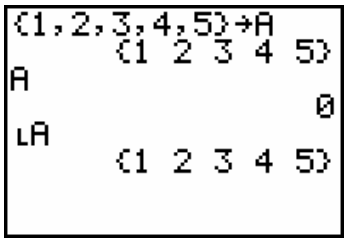
4 Lists

4.1 Defining lists

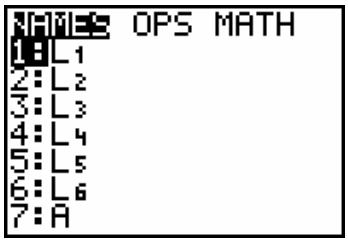
a. From the home screen

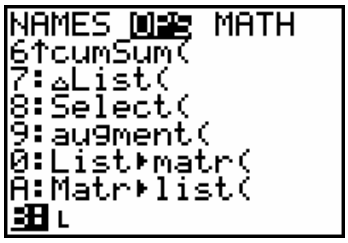
2nd[{] 1,2,3,4,5 2nd[}] STO▸ A



!! You can't use the letter **A** to work with list **A** !!

2nd[LIST]<NAMES> or **2nd[LIST]<OPS> B:L A**

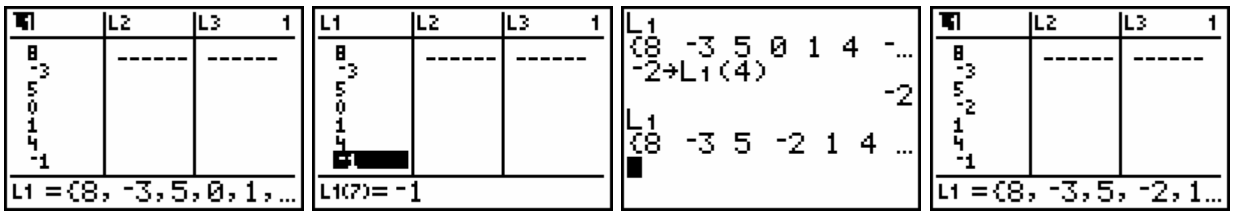




The **TI-83/84 Plus** has six standard lists in its memory: **L1** through **L6**. These lists are on the keys above the numerical keys **1** through **6**: **2nd[L1], …, 2nd[L6]**.

b. In the STAT editor - STAT 1:Edit

The **STAT** editor is a kind of worksheet in which you can enter data like in a spreadsheet.



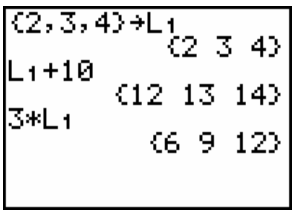
DEL-key	deletes a cell out of a list in the **STAT** editor
2nd[INS]	inserts a cell (cell = **0**) into a list in the **STAT** editor
CLEAR	clears the content of a list (with the cursor on the list name)

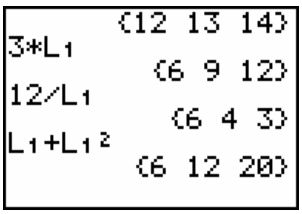
STAT 5:SetUpEditor = **STAT** editor with the lists **L1** through **L6**

4.2 Calculations with lists

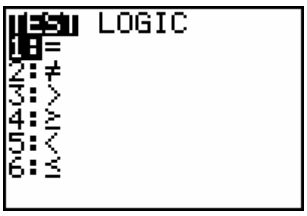
Define **L1** as {**2,3,4}** and do the following calculations:

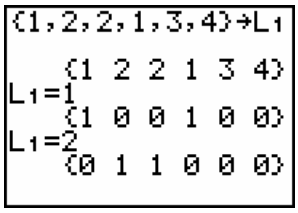
L1+10, **3*L1**, **12/L1** and **L1 + L1²**.

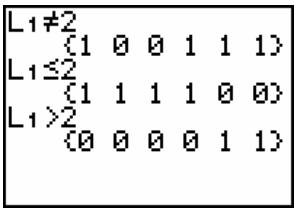


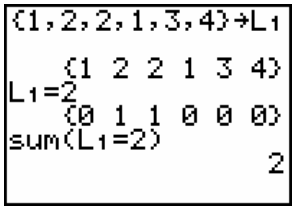


4.3 Logical operations with lists: 2nd[TEST]









With the command **2nd[LIST]<MATH> 5:sum(** in combination with a test you can examine how many elements meet a certain condition.

4.4 Operations with lists: 2nd[LIST]<OPS>

We will take a look at some of these commands.

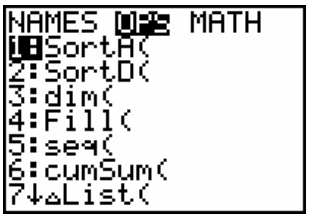
SortA(sorts a list in an **A**scending order

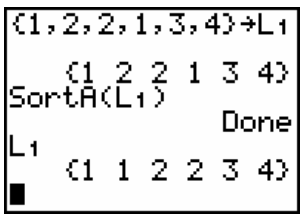
SortD(sorts a list in a **D**escending order

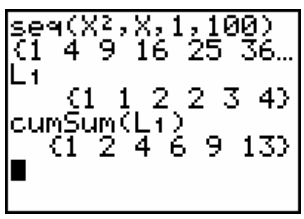
seq(generates a **seq**uence of numbers

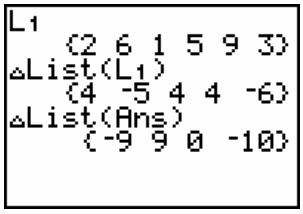
cumSum(determines the cumulative sums of the elements of a list

ΔList(determines the difference of successive elements of a list



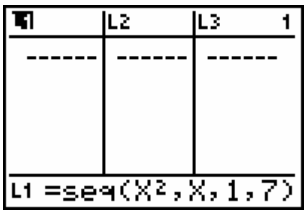


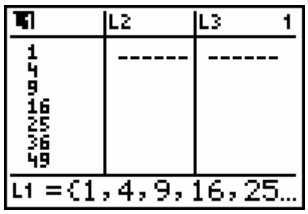




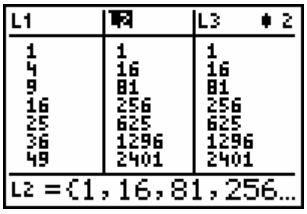
4.5 Lists and formulas

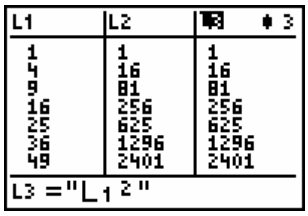
Define **L1** as **seq(X²,X,1,7)**.





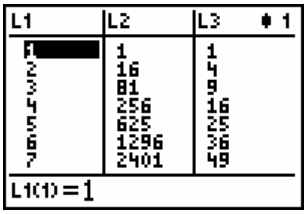
Define **L2** as **L1²** and **L3** as **ALPHA["] L1² ALPHA["]**.





♦ = the formula is blocked

Change the content of **L1** into **seq(X,X,1,7)**. What happens with the content of **L2** en **L3**?



4.6 Scatter plot

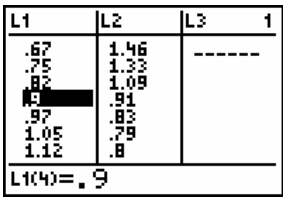
We will draw a scatter plot for the following data, the bounce of a ball, with **2nd[STAT PLOT] 1:Plot1**.

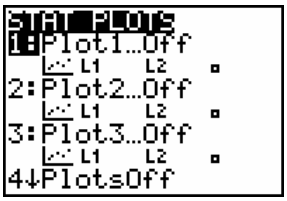
Put the cursor on **On** and press **ENTER**.

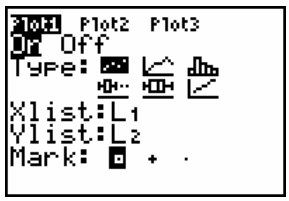
Select as **Type** the scatter plot icon (⁘) and define Xlist as **2nd[L1]** and Ylist as **2nd[L2]**.

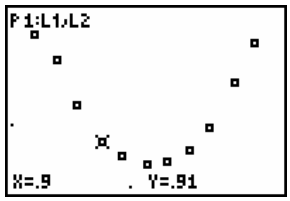
Plot the histogram with **ZOOM 9:ZoomStat**. With **TRACE** you can move the cursor from one data point to the next one.

L1 t	L2 $x(t)$
0.67	1.46
0.75	1.33
0.82	1.09
0.9	0.91
0.97	0.83
1.05	0.79
1.12	0.8
1.2	0.86
1.27	0.98
1.35	1.21
1.42	1.42









To connect the data points, select the xyLine icon (⁘) instead of the scatter plot icon (⁘).