# Rolling a dice simulation using a tally table
- Part 2

Select RUN mode from the main menu by using the arrow keys to highlight the RUN icon or pressing 1, similarly using the arrow keys to highlight the STAT icon or pressing 2.
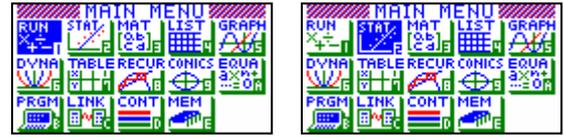
In '**Rolling a dice simulation using a tally table - Part 1'** moving from the RUN icon to the STAT icon and back the command instructions were lost and you had to type it all in again!

Once again we will start with: Suppose you want to generate the rolls of a **fair 6 sided die** which has the numbers 1, 2, 3, 4, 5 and 6 on each face. In the RUN icon and type: {1,2,3,4,5,6}→List 1 EXE and then {0,0,0,0,0,0}→ List 2 EXE.

These commands set up a **'Tally Table' (in List 1 - score and list 2 - frequency)**.
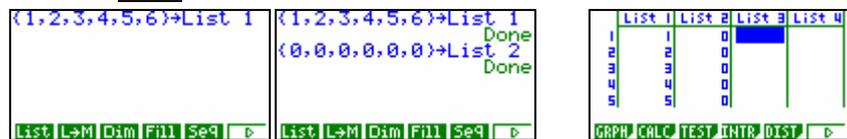
Checking the STAT icon
Using the random number generator **Int(Ran#x6)+1** to generate the rolls of the die (or dice), the command illustrated will sent the result to the tally table set up in List 1 and List 2. We can instruct the calculator to build up this frequency column each time the EXE key is pressed.

Section 1: Type in as shown in the screen dump on the right.
Required commands:
Int OPTN F6 F4 F2   Ran# OPTN F6 F3 F4
List OPTN F1 F1   : SHIFT VARS F6 F5

Before you press EXE you are going to store this set of instructions.
Follow the menu trail: OPTN F6 F6 F3 F1 F1. You have stored these instructions in f1 and can now recall the instructions at any time by following the menu trail: OPTN F6 F6 F3 F2 F1.

Now generate however many rolls of the dice by pressing EXE. See **'Rolling a dice simulation using a tally table - Part 1'** for setting up and displaying a histogram and / or summary statistics based on the data you have generated.

Section 2: No need to press EXE all the time!
With a few minor adjustments to the above commands, a small program can do the whole process. [See screen snap opposite.]
Make sure that List 1 and list 2 have been 'reset' to:
{1,2,3,4,5,6}→List 1 EXE and
{0,0,0,0,0,0}→ List 2 EXE
Extra commands required:
? SHIFT VARS F4
For To Step Next: SHIFT VARS F1 F6 then either F1 F2 F3 or F4
When you press EXE a '**?**' is displayed, enter how many rolls of the dice you require (e.g.1000) and then just wait! Enter into the STAT icon and statistically view the simulation graphically and / or numerically. In this instance . . .