

Statistical Simulations - 3

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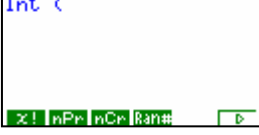
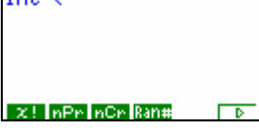
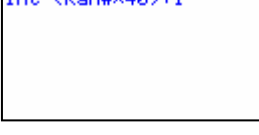
Select RUN mode from the main menu by using the arrow keys to highlight the RUN icon or pressing 1.



Note: Rolling a dice with 4 – n sides or using the calculator random number generator to do simulations- not much of a choice really!
The calculator will generate a 10 digit random number 0.abcdefghij BUT to simulate LOTTO (in New Zealand):

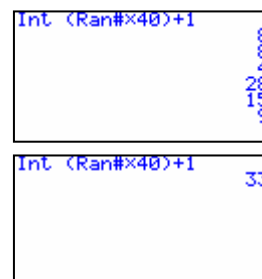
$$\text{Int}(\text{ran}\# \times 40)+1$$

is required.

1. OPTN key		2. F6 key	
3. F4 key		4. F2 key	
5. OPTN key		6. F6 key	
7. F3 key		8. F4 key	

This will generate a random number that is either a 1, 2, 3, , 38, 39 or 40.

Example 1: Push the EXE key at least 6 times (so that you do not get a repeated number), and this will generate 6 numbers (simulation of the LOTTO balls rolling out of the barrel).



8 8 (ignore this 8) 4 28 15 9 33

generated numbers are:

8	4	28	15	9	33
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Repeat this process a number of times and record the sum of all 6 numbers that are generated.

In the example above:

8	4	28	15	9	33
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Total = 97

Collate the data you have generated with other members of the class and see if you get a pattern. Why does this happen?

Sum (in 10's)	Tally / frequency
0-	
10-	
20-	
30-	
40-	
50-	
60-	
70-	
80-	
90-	
100-	
110-	
120-	
130-	
140-	
150-	
160-	
170-	
180-	
190-	
200-	
220-	
230-240	