

Chapter 8 (Sampling)

Simple Random Sampling

Situation:

Suppose you work in the Experimental Psychology Lab at UT and your boss asks for a SRS of 15 rats from the 357 rats in room F, (every rat has a collar with a unique number form 1 to 357).

Go to **Calc>Make Patterned Data>Simple Set of Numbers**. Now, next to “**Store patterned data in**”, type C1. Next to “**From first value**”, type 1. Next to “**To last value**”, type 357, then click **OK**.

Now, in column 1, you have every rat, from number 1 to 357.

Next, we have to take 15 rats from C1. Go to **Calc>Random Data>Sample From Columns...**. Next to “**Number of rows to sample:**”, type 15. Under “**From columns:**”, type C1, and under “**Store samples in:**”, type C2, then click **OK**.

C2
128
242
279
246
198
170
67
304
115
53
73
326
247
31
188

Now, you must go to room F to find the rats that match the above numbers. These rats will participate in a diet experiment.

Note: For more information, see the *Minitab Manual*.

Chapter 9 (Experimental Design)

Randomize

Situation:

Suppose you work as a nutritionist and you have 16 subjects and 4 diets (treatments). You can use Minitab to randomize. Type from 1 to 16 in C1. Go to **Calc>Random Data>Sample From Columns...**, next to **“Number of rows to sample:”**, type 16. Under **“From columns:”**, type C1, and under **“Store samples in:”**, type C2, then click **OK**.

C1	C2
1	7
2	11
3	3
4	8
5	16
6	13
7	10
8	15
9	14
10	9
11	12
12	6
13	1
14	5
15	4
16	2

Next, just read C2 and assign each subject a diet (from 1 to 4) in order: for example, subject 7 takes diet 1, subject 11 takes diet 2, subject 3 takes diet 3, subject 8 diet 4, subject 16 takes diet 1, subject 13 takes diet 2 and so forth ... all the way to the end where subject 2 takes diet 4.