Simfit

In experimental design it is often required to take a list of numbers, names, or similar, and jumble them up to generate a randomly shuffled list.

From the main SimFiT menu select [A/Z], open program **rannum** and choose to permute a list. As all lists of n items can be regarded as in one to one correspondence to the successive integers $1, 2, \ldots, n$, all that is required is a technique to select one of the $n!$ possible lists, where every permutation is equally likely.

Here is the starting set followed by such a set of ten shuffled lists, each with ten items but note that, for $n \leq 26$, the corresponding alphabetical characters are also displayed as here, which some may find convenient.

Starting list

1	2	3	4	5	6	7	8	9	10
A	B	C	D	E	F	G	H	I	J

10 out of the 10! possible shuffled lists

7	4	6	1	5	3	9	10	2	8
G	D	F	A	E	C	I	J	B	H
6	3	10	7	1	5	4	8	2	9
F	C	J	G	A	E	D	H	B	I
8	2	3	7	9	1	6	5	10	4
H	B	C	G	I	A	F	E	J	D
9	10	6	8	4	5	2	3	7	1
I	J	F	H	D	E	B	C	G	A
9	6	3	4	2	1	7	5	8	10
I	F	C	D	B	A	G	E	H	J
7	6	2	5	3	1	9	8	4	10
G	F	B	E	C	A	I	H	D	J
4	6	9	3	10	8	2	1	5	7
D	F	I	C	J	H	B	A	E	G
6	8	3	7	10	9	2	5	1	4
F	H	C	G	J	I	B	E	A	D
2	7	1	10	9	5	4	8	6	3
B	G	A	J	I	E	D	H	F	C
10	9	5	8	2	1	7	6	3	4
J	I	E	H	B	A	G	F	C	D

After scrambling such a list, a chosen permutation can be copied to the clipboard or written to a SimFiT type data file for retrospective use, with alphabetical equivalents appended for $n \leq 26$. Note that program **rannum** will generate a new permutation at every operation unless the option to input a fixed seed to regenerate an identical list is chosen, and the fixed seed is input at the start of the permutations.