Statistics LET Subcommands RANDOM PERMUTATION

# RANDOM PERMUTATION

#### **PURPOSE**

Generate a set of random permutations.

### **DESCRIPTION**

For a given size N, the integers from 1 to N are randomly sampled (without replacement) until all elements have been selected. This command is useful for randomly assigning a list of items (to groups, treatments, etc.).

#### **SYNTAX**

```
LET <resp> = RANDOM PERMUTATION FOR I = <start> <inc> <stop>
```

where <start> is a number or parameter that identifies the first row of <resp> in which the permutated values are saved (typically it has a value of 1);

<inc> is a number or parameter that identifies the row increment of <resp> in which the permutated values are saved (typically it has a value of 1);

<stop> is a number or parameter that identifies the last row of <resp> in which the permutated values are saved;

and <resp> is a variable where the permutated values are saved.

#### **EXAMPLES**

```
LET RP = RANDOM PERMUTATION FOR I = 1 1 100
```

#### NOTE 1

The following are similar:

```
LET Y1 = RANDOM PERMUTATION FOR I = 1 1 N
```

and

LET N = 100

LET Y2 = DISCRETE UNIFORM RANDOM NUMBERS FOR I = 1 1 N

The distinction is that the first command (RANDOM PERMUTATIONS) does the sampling without replacement while the second command does the sampling with replacement (so you can have repeat values).

#### NOTE 2

The SEED command can be used to specify a seed for the random number generation.

### **DEFAULT**

None

# **SYNONYMS**

None

# **RELATED COMMANDS**

LET = Generate data transformations.
BOOTSTRAP SAMPLE = Generate a bootstrap sample.
BOOTSTRAP INDEX = Generate a bootstrap index.

JACKINFE INDEX = Generate a jacknife index.
BOOTSTRAP PLOT = Generate a jacknife plot.

JACKNIFE PLOT = Generate a jacknife plot.

### **APPLICATIONS**

Experimental Design

## IMPLEMENTATION DATE

89/2