

## SKEWNESS PLOT

### PURPOSE

Generates a subsample skewness versus subsample index plot.

### DESCRIPTION

The subsample skewness is the cube root of the standardized third central moment of the data in the subsample. The skewness plot is used to answer the question: "Does the subsample skewness change over different subsamples?" It consists of:

Vertical axis = subsample skewness;

Horizontal axis = subsample index.

In addition, a horizontal line is drawn representing the full sample skewness. The appearance of the 2 traces is controlled by the first 2 settings of the LINES, CHARACTERS, SPIKES, BARS, and similar attributes.

### SYNTAX

SKEWNESS PLOT <y> <x> <SUBSET/EXCEPT/FOR qualification>

where <y> is the response (= dependent) variable;

<x> is the subsample identifier variable (this variable appears on the horizontal axis);

and where the <SUBSET/EXCEPT/FOR qualification> is optional.

### EXAMPLES

SKEWNESS PLOT Y X

SKEWNESS PLOT Y X SUBSET X > 2

### DEFAULT

None

### SYNONYMS

None

### RELATED COMMANDS

|                         |   |   |
|-------------------------|---|---|
| CHARACTERS              | = | Sets the type for plot characters.            |
| LINES                   | = | Sets the type for plot lines.                 |
| KURTOSIS PLOT           | = | Generates a kurtosis plot.                    |
| VARIANCE PLOT           | = | Generates a variance plot.                    |
| STANDARD DEVIATION PLOT | = | Generates a standard deviation plot.          |
| RANGE PLOT              | = | Generates a range plot                        |
| MEAN PLOT               | = | Generates a mean plot.                        |
| MEDIAN PLOT             | = | Generates a median plot.                      |
| BOX PLOT                | = | Generates a box plot.                         |
| S CHART                 | = | Generates a standard deviation control chart. |
| PLOT                    | = | Generates a data or function plot.            |

### APPLICATIONS

Quality Control

### IMPLEMENTATION DATE

88/2

## PROGRAM

```
SKIP 25
READ GEAR.DAT Y X
LINE BLANK DASH
CHARACTER X BLANK
XTIC OFFSET 0.2 0.2
YILABEL SKEWNESS
XILABEL SAMPLE ID
TITLE AUTOMATIC
SKEWNESS PLOT Y X
```

