### CLASS LOWER

**PURPOSE**

Specifies the lower limit of the left-most class to be included in subsequent histograms, frequency plots, rootograms, bi-histograms, and pie charts.

**SYNTAX**

```
CLASS LOWER <x>
```

where `<x>` is a number or parameter that specifies the desired limit in units of the horizontal axis data.

**EXAMPLES**

- CLASS LOWER 0.5
- CLASS LOWER 15

**NOTE**

DATAPLOT’s default class width algorithm tends to leave empty classes at the extremes of the distribution. Using the CLASS LOWER and CLASS UPPER (e.g., you can easily set them to the data minimum and maximum respectively) provides a simple way to avoid this problem.

**DEFAULT**

The default lower limit is the sample mean minus 6 times the sample standard deviation.

**SYNONYMS**

None

**RELATED COMMANDS**

- **CLASS UPPER**
  - Sets the upper class maximum for histograms, frequency plots, and pie charts.
- **CLASS WIDTH**
  - Sets the class width for histograms, frequency plots, and pie charts.
- **MINIMUM**
  - Sets the frame minima for all plots.
- **MAXIMUM**
  - Sets the frame maxima for all plots.
- **LIMITS**
  - Sets the frame limits for all plots.
- **HISTOGRAM**
  - Generate a histogram.
- **FREQUENCY PLOT**
  - Generate a frequency plot.
- **PIE CHART**
  - Generate a pie chart.
- **PLOT**
  - Generates a plot (including bar plots).
- **BARS**
  - Sets on/off switches for plot bars.
- **BAR WIDTH**
  - Sets widths for plot bars.

**APPLICATIONS**

Histograms, frequency plots, pie charts

**IMPLEMENTATION DATE**

Pre-1987

**PROGRAM**

```
LET Y = NORMAL RANDOM NUMBERS FOR I = 1 1 1000
CLASS LOWER -3.5
HISTOGRAM Y
```