**REPDF**

**PURPOSE**
An internal DATAPLOT parameter into which the replication degrees of freedom is automatically placed, if replication exists, whenever the FIT, SPLINE FIT, EXACT RATIONAL FIT, LOWESS, ANOVA, SMOOTH, YATES ANALYSIS, PRE-FIT, and MEDIAN POLISH commands are executed.

**DESCRIPTION**
In general, the replication degrees of freedom is computable only when replication exists in the data. The formula is:

\[ \text{REPDF} = \text{total number of observations} - \text{number of subsets} \]

REPDF may be used by the analyst in whatever fashion desired.

**SYNTAX**
None

**EXAMPLES**

```
WRITE RESDF REPSD REPDF RESSD LOGCDF
LET SSQD = RESDF**(REPSD**2)
WRITE CALIB. RESDF REPSD REPDF RESSD LOGCDF
```

**DEFAULT**
None

**SYNONYMS**
None

**RELATED COMMANDS**
- **PRED** = A variable where predicted values are stored.
- **RES** = A variable where residuals are stored.
- **RESSD** = A parameter where the residual standard deviation is stored.
- **REPDF** = A parameter where the residual degrees of freedom is stored.
- **REPSD** = A parameter where the replication standard deviation is stored.
- **LOFCDF** = A parameter where the lack of fit cdf is stored.
- **FIT** = Carries out a least squares linear or non-linear fit.
- **EXACT RATIONAL FIT** = Carries out an exact rational fit.
- **PRE-FIT** = Carries out a least squares pre-fit.
- **SPLINE FIT** = Carries out a spline fit.
- **YATES ANALYSIS** = Carries out an analysis of a Yates design.
- **LOWESS** = Carries out a locally weighted least squares fit.
- **SMOOTH** = Carries out a smoothing.
- **ANOVA** = Carries out an ANOVA.
- **MEDIAN POLISH** = Carries out a median polish.
- **PLOT** = Generates a data/function plot.

**APPLICATIONS**
Fitting

**IMPLEMENTATION DATE**
Pre-1987

**PROGRAM**

```
SKIP 25
READ BERGER1.DAT Y X
LINEAR FIT Y X
PRINT REPSD REPDF LOFCDF
```