DISPDF

PURPOSE

Compute the discrete uniform probability density function.

DESCRIPTION

The discrete uniform probability density function is :

$$p(x, n) = \frac{1}{n + 1} \qquad \text{for } x = 0, 1, 2, \ldots, n \qquad \textbf{(EQ 8-166)}$$

SYNTAX

LET <y> = DISPDF(<y>,<n>) <SUBSET/EXCEPT/FOR qualification>

where <x> is a variable, a number, or a parameter containing values between 0 and <n>;

<n> is a number or parameter that defines the upper limit of the discrete uniform distribution;

<y> is a variable or a parameter (depending on what <y> is) where the computed pdf value is stored;

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

EXAMPLES

LET A = DISPDF(3,20)

LET Y = DISPDF(X1,100)

DEFAULT

None

SYNONYMS

None

RELATED COMMANDS

DISCDF	=	Compute the discrete uniform cumulative distribution function.
DISPPF	=	Compute the discrete uniform percent point function.
UNICDF	=	Compute the uniform cumulative distribution function.
UNIPDF	=	Compute the uniform probability density function.
UNIPPF	=	Compute the uniform percent point function.
UNISF	=	Compute the uniform sparsity function.
NORCDF	=	Compute the normal cumulative distribution function.
NORPDF	=	Compute the normal probability density function.
NORPPF	=	Compute the normal percent point function.

REFERENCE

"Statistical Distributions," 2nd. Edition, Evans, Hastings, and Peacock, John Wiley and Sons, 1993, (chapter 36).

"Discrete Distributions," Johnson and Kotz, Houghton-Mifflin, 1970 (chapter 10).

APPLICATIONS

Data Analysis

IMPLEMENTATION DATE

94/9

PROGRAM

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TITLE AUTOMATIC
X1LABEL X
Y1LABEL PROBABILITY
LINE BLANK
SPIKE ON
PLOT DISPDF(X,20) FOR X = 0 1 20
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