DISCDF

PURPOSE
   Compute the discrete uniform cumulative distribution function.

DESCRIPTION
   The discrete uniform probability density function is :

$$p(x, n) = \frac{1}{n + 1} \qquad \text{for } x = 0, 1, 2, \ldots, n \qquad \textbf{(EQ 8-164)}$$

   The discrete uniform cumulative distribution function is:

$$F(x, n) = \frac{x + 1}{n + 1} \qquad \text{for } x = 0, 1, 2, \ldots, n \qquad \textbf{(EQ 8-165)}$$

SYNTAX
   LET <y> = DISCDF(<x>,<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 cdf value is stored;
   and where the <SUBSET/EXCEPT/FOR qualification> is optional.

EXAMPLES
   LET A = DISCDF(3,20)
   LET Y = DISCDF(X1,100)

DEFAULT
   None

SYNONYMS
   None

RELATED COMMANDS
   DISPDF   =   Compute the discrete uniform probability density function.
   DISPPF   =   Compute the discrete uniform percent point function.
   UNIPDF   =   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
   94/12 (earlier versions have a bug)

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