Other Functions

@IN (set_name, set_element)
   Returns 1 if set_element is present in set_name; returns 0 if not present.

@SIZE (set_name)
   Returns the number of elements in the set.

@WARN('text', condition)
   If the condition is true, the message text is displayed when the model is solved. This is useful for warning
   the user of any abnormal data values.

@WRAP(I,N)
   Returns \( I \) if \( I \) is in the interval \([1, N]\). Otherwise, @WRAP subtracts \( N \) from \( I \) until \( I \) is in the interval \([1, N]\), then returns \( I \). (Formally, returns \( J \) such that \( J = I - K* N \), where \( K \) is a positive or negative integer such that \( J \) is in the interval \([1, N]\)). @WRAP is undefined if \( N < 1 \). The @WRAP function is useful, for instance, in staffing models when you want to assign a seven day period that wraps around from Thursday to Tuesday.

The @USER Function

The @USER function allows the use of custom functions in LINGO. The functions must be written and
compiled in the FORTRAN or C programming languages.

From the perspective of a LINGO model, an @USER function is a function that can take any number of
arguments, but must take at least one. It returns a result calculated by the user-written routine.

From the perspective of the programmer writing the custom function, an @USER function takes only two
arguments:

   An integer specifying the number of arguments encountered in the @USER reference in the LINGO
   model
   A vector containing the values of the arguments encountered in the @USER reference

In other words, although to the LINGO modeler an @USER function can appear to take any number of
arguments specified by the programmer, to the programmer writing the function, only two arguments are
allowed. For more information on the @USER function, please refer to your LINGO documentation.