GCD

PURPOSE
Compute the greatest common divisor of two integers.

SYNTAX
LET <y> = GCD(<x1>,<x2>) <SUBSET/EXCEPT/FOR qualification>
where <x1> is a number, parameter, or variable (real numbers are rounded to integer values);
<x2> is a number, parameter, or variable (real numbers are rounded to integer values);
<y> is a variable or a parameter (depending on what <x1> and <x2> are) where the computed greatest common divisor is stored;
and where the <SUBSET/EXCEPT/FOR qualification> is optional.

EXAMPLES
LET A = GCD(14,38)
LET A = GCD(X1,X2)
LET A = GCD(X1,3)

DEFAULT
None

SYNONYMS
None

RELATED COMMANDS
INT = Compute the integer value rounded to zero.
ROUND = Round to the closest integer of a number.
FLOOR = Compute the integer value rounded to negative infinity.
CEIL = Compute the integer value rounded to positive infinity.
SIGN = Compute the sign of a number.
FRACT = Compute the fractional portion of number.
MSD = Compute the most significant digit of a number.

APPLICATIONS
Elementary function

IMPLEMENTATION DATE
95/4

PROGRAM
. PRINT ALL INTEGERS BETWEEN 1 AND 200 DIVISIBLE BY 3
LET X = SEQUENCE 1 1 200
LET Y = GCD(X,3)
PRINT Y