

**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
```