

CSC**PURPOSE**

Compute the cosecant for a variable or parameter.

DESCRIPTION

The cosecant is defined for all real numbers except integer multiples of π . The range is 1 to plus infinity and minus infinity to -1. By default, the angle is specified in radian units. To use degree values, enter the command ANGLE UNITS DEGREES (ANGLE UNITS RADIANS resets it).

SYNTAX

LET <y2> = CSC(<y1>) <SUBSET/EXCEPT/FOR qualification>

where <y1> is a number, parameter, or variable;

<y2> is a variable or a parameter (depending on what <y1> is) where the computed cosecant value is stored;
and where the <SUBSET/EXCEPT/FOR qualification> is optional.

EXAMPLES

```
LET A = CSC(-2)
LET A = CSC(A1)
LET X2 = CSC(PI/2)
```

DEFAULT

None

SYNONYMS

None

RELATED COMMANDS

SIN	=	Compute sine.
COS	=	Compute cosine.
TAN	=	Compute tangent.
COT	=	Compute cotangent.
SEC	=	Compute secant.
ARCCOS	=	Compute arccosine.
ARCSIN	=	Compute arcsine.
ARCTAN	=	Compute arctangent.
ARCCOT	=	Compute arccotangent.
ARCSEC	=	Compute arcsecant.
ARCCSC	=	Compute arcsecant.

APPLICATIONS

Trigonometry

IMPLEMENTATION DATE

Pre-1987

PROGRAM

```
TITLE CSC(X) FOR X = -3.1 TO 3.1
XILABEL ANGLE (RADIANS)
YILABEL CSC(X)
YLIMITS -20 20
XLIMITS -3 3
XTIC OFFSET 0.2 0.2
PLOT CSC(X) FOR X = 0.01 0.01 3.14 AND
PLOT CSC(X) FOR X = -0.01 -0.01 -3.14
LINE DOTTED
MOVEDATA -3.14 1
DRAWDATA 3.14 1
MOVEDATA -3.14 -1
DRAWDATA 3.14 -1
MOVEDATA 0 20
DRAWDATA 0 -20
```

