

Calculation Syntax

Some example calculation expressions:

```
SIN(3.14)+5^2+POW(2,7)-MAX(10,20)
{ [ SIN(myVariable)^2 ] + COS(1.4) } * PI/2
LOG(1-X^2+X^5)+Y
3.6 + MIN(X, Y)
EXP(-1.53389*(X-32))*POW(Y, 0.13547)
5 + IF(X<>0, 3/X, 0)
3 + X^Y
IF( Y>=DL69, 6, 9 )
IF( (bigVal > X)&(Y<10), 6, 8 )
```

There is only ONE predefined constant:

PI = 3.14159265358979

Operations (normal precedence applies):

```
'+'
'-'
'*'
'/'
'^' (power)
'%' (modulo)
```

Operations with two arguments and a 0 or 1 result depending on truth of expression (useful with IF).

```


```

Brackets: any of [{} can be used in the normal way with matching closing.

Logical operators:

```
'='
'&' (and)
'|' (or)
```

Unary operators:

```
+ (no affect)
- (negates)
! (logical compliment)
```

Functions - one argument"

```
"SQR", square
"SIN", sin
"COS", cos
"ATAN", arctan
"SINH", sinh
```

"COSH", cosh
"COTAN", cotan
"TAN", tan
"EXP", exp
"LN", natural log
"LOG", log base 10
"SQRT", square root
"ABS", absolute value
"SIGN", +1 or -1 depending on sign
"TRUNC", integer part
"CEIL", next integer
"FLOOR", previous integer
"RANDOM", a random number less than the argument

Functions – two argument

"POW", arg1 power arg2
"LOGN", log arg1 / log arg2
"MIN", min of args
"MAX", max of args
"MOD", arg1 modulo arg2

Functions - special

"IF" takes 3 args, the first is the branch condition, followed by the result if not zero, then the result if zero.
"SUM", sum (will sum any number of args)

See Also:

Help>Training Videos (web): *Use, Create and Save Calculations* (Maintained users only)

Calculations [FAQ](#) for more information about common issues.