

# Token Patterns

## Literals

NUM := [0-9]+|[0-9]+\.[0-9]+

## Variables

VAR := (?i:a)(?i:b)(?i:c)(?i:x)(?i:y)(?i:z)(?i:sum)(?i:count)

## Operators

AS\_PLUS := "+" # Increment the left variable by the right operand  
AS\_MINUS := "-" # Decrement the left variable by the right operand  
AS\_MULT := "\*" # Multiply the left variable by the right operand  
AS\_DIV := "/" # Divide the left variable by the right operand  
AS\_POW := "^" # Raise the left variable to the right operand  
AS\_MOD := "%" # Modulate the left variable by the right operand  
EX\_PLUS := "+" # Add both operands  
EX\_MINUS := "-" # Subtract the right operand from the left operand  
EX\_MULT := "\*" # Multiply both operands  
EX\_DIV := "/" # Divide the left operand by the right operand  
EX\_POW := "^" # Raise the left operand to the right operand  
EX\_MOD := "%" # Modulate the left operand by the right operand  
EX\_EQ := "==" # Return 1 if both operands are equal, else 0  
EX\_LT := "<" # Return 1 if the left operand is smaller than the right operand, else 0  
EX\_GT := ">" # Return 1 if the left operand is greater than the right operand, else 0  
EX\_LE := "<=" # Return 1 if the left operand is smaller than or equal to the right operand, else 0  
EX\_GE := ">=" # Return 1 if the left operand is greater than or equal to the right operand, else 0  
EX\_NE := "!=" # Return 0 if both operands are equal, else 1  
EX\_CLAIMATION := "!" # Return 1 if the right operand is 0, else return 0 (unary)

## Keywords

WHILE := (?i:while) # While the first argument evaluates to non-zero, evaluate the second argument  
ENDWHILE := (?i:end\ while)(?i:endwhile)  
IF := (?i:if) # If the first argument evaluates to non-zero, evaluate the second argument  
ELSE := (?i:else) # If the previous corresponding if statement evaluated to zero, evaluate the first argument.  
ENDIF := (?i:end\ if)(?i:endif)  
SAY := (?i:say)(?i:print) # Print the evaluation of the first argument to stdout  
OUTPUT := (?i:output) # Print the control code '#OUTPUT(CHANNEL, VAL)' to stdout, where OUTPUT is the first argument and VAL is the evaluation of the second argument.

## Other

RPAREN := ")" # Used to explicitly specify order of operations  
LPAREN := "(" # Used to explicitly specify order of operations.