```python
from sys import *

tokens = []
num_stack = []
symbols = {}

def open_file(filename):
    data = open(filename, "r").read()
    data += "<EOF>"
    return data

def lex(filecontents):
    tok = ""
    state = 0
    isexpr = 0
    varstarted = 0
    var = ""
    STRING = ""
    expr = ""
    n = ""
    filecontents = list(filecontents)
    for char in filecontents:
        tok += char
        if tok == " ":
            if state == 0:
                tok = ""
            else:
                tok = " "
        elif tok == "\n" or tok == "<EOF>":
            if expr != "" and isexpr == 1:
                tokens.append("EXPR:" + expr)
                expr = ""
            elif expr != "" and isexpr == 0:
                tokens.append("NUM:" + expr)
                expr = ""
            elif var != "":
                tokens.append("VAR:" + var)
                var = ""
                varstarted = 0
            tok = ""
        elif tok == "=" and state == 0:
            if expr != "" and isexpr == 0:
                tokens.append("NUM:" + expr)
                expr = ""
            if var != "":
                tokens.append("VAR:" + var)
                var = ""
                varstarted = 0
            if tokens[-1] == "EQUALS":
                tokens[-1] = "EQEQ"
            else:
                tokens.append("EQUALS")
            tok = ""
        elif tok == "$" and state == 0:
            varstarted = 1
            var += tok
            tok = ""
        elif varstarted == 1:
            if tok == "<" or tok == ">":
                if var != "":
                    tokens.append("VAR:" + var)
                    var = ""
                    varstarted = 0
            var += tok
            tok = ""
        elif tok == "ilabas" or tok == "ILABAS":
            tokens.append("print")
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```python
                        tok = ""
                elif tok == "PUNASAN" or tok == "punasan":
                    tokens.append("ENDIF")
                    tok = ""
                elif tok == "pag" or tok == "PAG":
                    tokens.append("IF")
                    tok = ""
                elif tok == "ituloy" or tok == "ITULOY":
                    if expr != "" and isexpr == 0:
                        tokens.append("NUM:" + expr)
                        expr = ""
                    tokens.append("THEN")
                    tok = ""
                elif tok == "IPASOK" or tok == "ipasok":
                    tokens.append("INPUT")
                    tok = ""
                elif tok == "0" or tok == "1" or tok == "2" or tok == "3" or tok == "4" or tok \
                    == "5" or tok == "6" or tok == "7" or tok == "8" or tok == "9":
                    expr += tok
                    tok = ""
                elif tok == "+" or tok == "-" or tok == "*" or tok == "/" or tok == "(" or tok \
                    == ")":
                    isexpr = 1
                    expr += tok
                    tok = ""
                elif tok == "\t":
                    tok = ""
                elif tok == "\"" or tok == " \"":
                    if state == 0:
                        state = 1
                    elif state == 1:
                        tokens.append("STRING:" + STRING + "\"")
                        STRING = ""
                        state = 0
                        tok = ""
                elif state == 1:
                    STRING += tok
                    tok = ""
        #print(tokens)
        #return ''
        return tokens

    def evalExpression(expr):

        return eval(expr)

    def doPrint(toPrint):
        if(toPrint[0:6] == "STRING"):
            toPrint = toPrint[8:]
            toPrint = toPrint[:-1]
        elif(toPrint[0:3] == "NUM"):
            toPrint = toPrint[4:]
        elif(toPrint[0:4] == "EXPR"):
            toPrint = evalExpression(toPrint[5:])
        print(toPrint)

    def doASSIGN(varname, varvalue):
        symbols[varname[4:]] = varvalue

    def getVARIABLE(varname):
        varname = varname[4:]
        if varname in symbols:
            return symbols[varname]
        else:
            return "TARANTADO: hindi ko kilala yang variable na yan"
            exit()
```

```python
133    def getINPUT(STRING, varname):
134        i = input(STRING[1:-1] + " ")
135        symbols[varname] = "STRING:\"" + i + "\""
136
137    def parse(toks):
138        i = 0
139        while(i < len(toks)):
140            if toks[i] == "ENDIF":
141                #print("found and endif")
142                i+=1
143            elif toks[i] + " " + toks[i+1][0:6] == "print STRING" or toks[i] + " " + toks[i+
               1][0:3] == "print NUM" or toks[i] + " " + toks[i+1][0:4] == "print EXPR" or toks
               [i] + " " + toks[i+1][0:3] == "print VAR":
144                if toks[i+1][0:6] == "STRING":
145                    doPrint(toks[i+1])
146                elif toks[i+1][0:3] == "NUM":
147                    doPrint(toks[i+1])
148                elif toks[i+1][0:4] == "EXPR":
149                    doPrint(toks[i+1])
150                elif toks[i+1][0:3] == "VAR":
151                    doPrint(getVARIABLE(toks[i+1]))
152                i+=2
153            elif toks[i][0:3] + " " + toks[i+1] + " " + toks[i+2][0:6] == "VAR EQUALS
               STRING" or toks[i][0:3] + " " + toks[i+1] + " " + toks[i+2][0:3] == "VAR EQUALS
               NUM" or toks[i][0:3] + " " + toks[i+1] + " " + toks[i+2][0:4] == "VAR EQUALS
               EXPR" or toks[i][0:3] + " " + toks[i+1] + " " + toks[i+2][0:3] == "VAR EQUALS
               VAR":
154                if toks[i+2][0:6] == "STRING":
155                    doASSIGN(toks[i],toks[i+2])
156                elif toks[i+2][0:3] == "NUM":
157                    doASSIGN(toks[i],toks[i+2])
158                elif toks[i+2][0:4] == "EXPR":
159                    doASSIGN(toks[i],"NUM:" + str(evalExpression(toks[i+2][5:])))
160                elif toks[i+2][0:3] == "VAR":
161                    doASSIGN(toks[i],getVARIABLE(toks[i+2]))
162                i+=3
163            elif toks[i] + " " + toks[i+1][0:6] + " " + toks[i+2][0:3] == "INPUT STRING VAR":
164                getINPUT(toks[i+1][7:],toks[i+2][4:])
165                i+=3
166            elif toks[i] + " " + toks[i+1][0:3] + " " + toks[i+2] + " " + toks[i+3][0:3] +
               " " + toks[i+4] == "IF NUM EQEQ NUM THEN":
167                if toks[i+1][4:] != toks[i+3][4:]:
168                    print("false")
169                    i+=5
170                i+=5
171            elif toks[i] + " " + toks[i+1][0:3] + " " + toks[i+2] + " " + toks[i+3][0:3] +
               " " + toks[i+4] == "IF VAR EQEQ NUM THEN":
172
173                #print(toks[i+1][0:3])
174                #print(getVARIABLE(toks[i+1])[0:6])
175                #print(toks[i+3][0:3])
176                if getVARIABLE(toks[i+1]) != toks[i+3]:
177                    #print("false")
178                    #print(getVARIABLE(toks[i+1])[8:-1])
179                    #print(int(toks[i+3][4:]))
180                    if getVARIABLE(toks[i+1])[8:-1] != toks[i+3][4:]:
181                        print("false")
182                        i+=5
183                i+=5
184            elif toks[i] + " " + toks[i+1][0:3] + " " + toks[i+2] + " " + toks[i+3][0:6] +
               " " + toks[i+4] == "IF VAR EQEQ STRING THEN":
185
186                #print(toks[i+1][0:3])
187                #print(getVARIABLE(toks[i+1]))
188
189                if getVARIABLE(toks[i+1]) != toks[i+3]:
190                    print("false")
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```python
                    i+=5
            i+=5
        #print(symbols)

def run():
    data = open_file(argv[1])
    toks = lex(data)
    parse(toks)
run()
```