

```
program ::= line-list END
        | END
line-list ::= line (line)*
line ::= integer statement CR
      | statement CR
      | error CR
      | CR
statement ::= PRINT expr-list
          | IF expression relop expression THEN statement
          | GOTO expression
          | LET var = expression
          | REM
expr-list ::= (string | expression) (, (string |
expression)* )
var-list ::= var (, var)*
expression ::= ( - | ) term (( + | - ) term)*
term ::= factor (( * | / ) factor)*
factor ::= var | number | ( expression )
var ::= char (char | digit)*
number ::= integer | decimal
decimal ::= digit \. digit digit*
integer ::= digit digit*
digit ::= [0-9]
char ::= [a-zA-Z]
relop ::= < ( > | = |  $\epsilon$  ) | > ( < | = |  $\epsilon$  ) | =
string ::= (\" ) [ . ^ \" ] * (\" )
```

Figure 1: Formal grammar for this implementation of Tiny Basic
