<program> -> <vars> program <block>  
<block> -> begin <vars> <stats> end  
<vars> -> empty | whole Identifier := Integer ; <vars>   
<expr> -> <N> - <expr> | <N>

<N> -> <A> + <N> | <A> \* <N> | <A>

<N> → <A><N’>

<N’> → +<N> | \*<N> | EMPTY

<A> -> <A> / <M> | <M>

<A> → <M><A’>

<A’> → /<M> | EMPTY

<M> -> : <M> | <R>  
<R> -> ( <expr> ) | Identifier | Integer

<stats> -> <stat> <mStat>  
<mStat> -> empty | <stat> <mStat>

<stat> -> <in> ; | <out> ; | <block> | <if> ; | <loop> ; | <assign> ; |<goto> ; | <label> ;

<in> -> input Identifier   
<out> -> output <expr>  
<if> -> if [ <expr> <RO> <expr> ] then <stat> |   
if [ <expr> <RO> <expr> ] then <stat> pick <stat>  
<loop> -> while [ <expr> <RO> <expr> ] <stat>  
<assign> -> assign Identifier = <expr>   
<RO> -> > | < | == | [ = ] (three tokens) | !=  
<label> -> label Identifier  
<goto> -> warp Identifier