grammar Test;

ifstmt : 'if' '(' compexpr ')' stmt

| 'if' '(' compexpr ')' stmt 'else' stmt;

stmt : compoundstmt

| exprstmt;

compoundstmt : '<<' type stmtlist '>>';

exprstmt : expr ';'

|';'

;

expr : ID '=' expr | compexpr;

type : TY | ;

TY :'numbertype' | 'booltype';

stmtlist : stmtlist stmt | ;

compexpr : compexpr 'or' andcomp | andcomp;

andcomp : andcomp 'and' relexpr | relexpr ;

relexpr : sumexpr CMPOP sumexpr | sumexpr

;

CMPOP : '<='

|'>='

|'<'

| '>'

| '!='

| '=='

;

sumexpr : sumexpr '+' term | sumexpr '-' term | term

;

term : term '\*' factor | term '/' factor | factor

;

factor : ID

| immutable | DIGIT;

ID : NONDIGIT DIGIT | NONDIGIT

;

NONDIGIT : [a-zA-Z]+

;

DIGIT : [0-9]+

;

immutable : '(' compexpr ')'

| constant ;

constant : 'YES'

| 'NO';

WS : [ \t\r\n]+ -> skip;