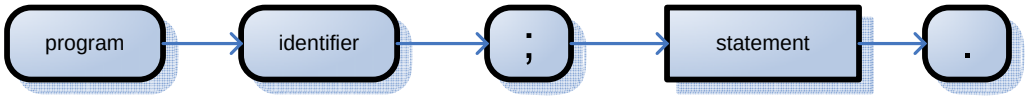
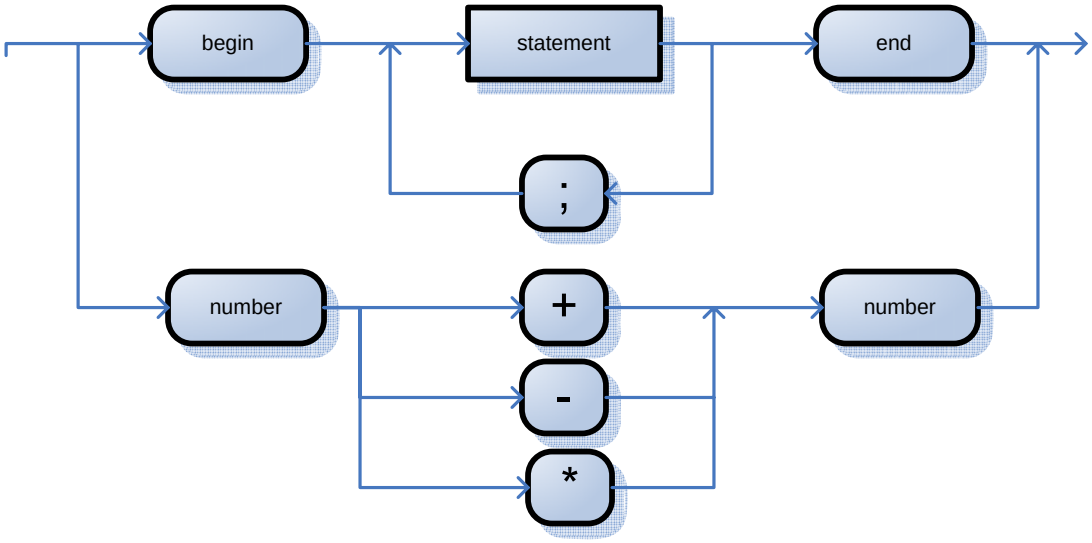
Buatlah parser untuk syntax graph seperti yang terdeskripsikan dibawah ini !

program :



statement :



Lampiran source code :

```
/*
      File name  : compiler.h
      Vers       : 0.01a
      Written by : Setiadi Rachmat
      Date       : Fri Aug 28 10:08:03 WIT 2009
*/

#define isprogram     (token.attr == RWORD && token.value == PROGRAM)
#define isbegin       (token.attr == RWORD && token.value == BEGIN)
#define isend         (token.attr == RWORD && token.value == END)

#define isidentifier  (token.attr == IDENTIFIER)

#define isnumbr       (token.attr == NUMBER)

#define issemicolon   (token.attr == SYMBOL && token.value == SEMICOLON)
#define isperiod      (token.attr == SYMBOL && token.value == PERIOD)
```

```
/*
      File name  : compiler.c
      Vers       : 0.01a
      Written by : Setiadi Rachmat
      Date       : Fri Aug 28 10:08:03 WIT 2009
*/

#include <stdio.h>
#include <stdlib.h>
#include <ctype.h>
#include <string.h>
#include "scanner.h"
#include "compiler.h"

extern token_t token;

void program(void);
void statement(void);

int main(int argc,char *argv[])
{

   int c = 0;

   init_token(argv[1]);

   program();

   printf(“Congratulations : No error is found\n”);
}

void program(void)
{
   get_token();

   if (!isprogram) {
     printf("Error : Reserved Word 'program' is expected\n");
     exit(-1);
   }

   get_token();

   if (!isidentifier) {
      printf("Error : Identifier is expected after 'program' \n");
      exit(-1);
   }

   get_token();

   if (!issemicolon) {
      printf("Error : Symbol ';'  is expected\n");
      exit(-1);
   }

   get_token();

   statement();

   if (!isperiod) {
      printf("Error : Symbol '.'  is expected\n");
      exit(-1);
```

```
   }
}

void statement(void)
{
   /* silakan lengkapi  */
}
```

Testing Code :

Input Source
`Program example31;` `526 * 321.`

`Program example32;`
`Begin`
`  100 + 21;`
`  30 – 643;`
`  10 * 32`
`End.`

`Program example33;`
`Begin`
`  Begin`
`    200 + 10;`
`     30 – 8`
`  End;`
`  13 * 46`
`End.`