

symbol table 모양과 출력형식은 자유입니다. 그러나 아래의 사항들을 반드시 포함시켜주세요. (location, 이름, symbol이 나타난 line number들, 변수/파라미터/함수여부, array여부, array크기, int/void type여부, scope)

1) 예시 1

```
1 int arr[10];
2 int brr[20];
3
4 void f(void){
5     ;
6 }
7
8 int func(int parA[], int parB){
9     int a[10];
10    int i;
11    i = 0;
12    while(parB == 0){
13        int wvar;
14        parA[i] = parB*func(parA,i)*(parA[i]+parA[i+1]/parB);
15        parB = parB - 1;
16        i = i+1;
17        if(parB = parA[12])
18            if(wvar == 1)
19                i = 0;
20        else i = 1;
21    }
22
23    return parA[2];
24 }
25
26 int crr[30];
27
28 void main(void){
29     int tmp;
30
31     while(tmp = 1){
32         int one;
33         one = arr[1];
34         if(one == brr[2])
35             tmp = one == brr[3];
36         else{
37             int two;
38             int tmp;
39
40             two = arr[2];
41             while(arr[one] == brr[tmp]){
42                 int tmp;
43                 if(1){
44                     int tmp;
45                     tmp = one;
46                 }
47             }
48             tmp = two;
49         }
50     }
51     tmp = func(arr,45);
52 }
```

Name	Scope	Loc	V/P/F	Array?	ArrSize	Type	Line Numbers

Name	Scope	Loc	V/P/F	Array?	ArrSize	Type	Line Numbers

wvar	2	-52	Var	No	-	int	13 18

Name	Scope	Loc	V/P/F	Array?	ArrSize	Type	Line Numbers

a	1	-44	Var	Array	10	array	9
i	1	-48	Var	No	-	int	10 11 14 16 19 20
parA	1	8	Par	Array	0	array	8 14 17 23
parB	1	4	Par	No	-	int	8 12 14 15 17

Name	Scope	Loc	V/P/F	Array?	ArrSize	Type	Line Numbers

tmp	5	-28	Var	No	-	int	44 45

Name	Scope	Loc	V/P/F	Array?	ArrSize	Type	Line Numbers

tmp	4	-24	Var	No	-	int	42

Name	Scope	Loc	V/P/F	Array?	ArrSize	Type	Line Numbers

two	3	-16	Var	No	-	int	37 40 48
tmp	3	-20	Var	No	-	int	38 41 48

Name	Scope	Loc	V/P/F	Array?	ArrSize	Type	Line Numbers

one	2	-12	Var	No	-	int	32 33 34 35 41 45

Name	Scope	Loc	V/P/F	Array?	ArrSize	Type	Line Numbers

tmp	1	-8	Var	No	-	int	29 31 35 51

Name	Scope	Loc	V/P/F	Array?	ArrSize	Type	Line Numbers

brr	0	120	Var	Array	20	array	2 34 35 41
main	0	2	Func	No	-	void	52
crr	0	240	Var	Array	30	array	26
f	0	0	Func	No	-	void	6
func	0	1	Func	No	-	int	24 14 51
arr	0	40	Var	Array	10	array	1 33 40 41 51

2) 예시 2

```

int glo;

void main(void) {
    int locA;
    {
        int locB;
        locA = 1;
        glo = locB;
    }
}

```

Name	Scope	Loc	V/P/F	Array?	ArrSize	Type	Line	Numbers
locB	2	0	Var	No	-	int	6	8
Name	Scope	Loc	V/P/F	Array?	ArrSize	Type	Line	Numbers
locA	1	0	Var	No	-	int	4	7
Name	Scope	Loc	V/P/F	Array?	ArrSize	Type	Line	Numbers
main	0	1	Func	No	-	void	10	
glo	0	0	Var	No	-	int	1	8

3) 예제 3

```

/* error1
    undeclared variable, function */
void main(void){
    g = 3;
    h = fun();
}

```

ERROR in line 4 : variable g not exist

4) 예제 4

```

/* error2
    duplicated function, variable */
int a;
int a;
void fun(void){
    ;
}
int fun(int a){
    a = 1;
}
void main(void){
    a = 2;
}

```

ERROR in line 4 : delcaration of a duplicated first declared at line 3

5) 예제 5

```

/* error6
        void type of array index */
int a[5];

void func(void){
    ;
}
void main(void){
    a[func()] = 1;
}

```

```

ERROR in line 9 : invalid subscript of array a
                  expected int but actual was void

```

6) 예제 6

```

/* error9
        invalid type in additive, multiplicative expression */
void funa(void){
    ;
}
void funb(void){
    ;
}
void func(void){
    ;
}
void main(void){
    int a;

    a = funa() + funb() * func();
}

```

```

ERROR in line 15 : invalid type in term expression
                  operand1 has type void, operand2 has type void

```

7) 예제 7

```

/* error13
        wrong return statement */
void func(void){
    int a;
    return a;
}
int funb(int c){
    c = 1;
}
int main(void){
    func(); funb(1);
}

```

```

ERROR in line 12 : main function should return void

```