Input:

```
const m = 7, n = 85;
var  i,x,y,z,q,r;
procedure mult;
  var a, b;
  begin
     a := x;  b := y; z := 0;
     while b > 0 do
     begin
        if odd x then z := z+a;
           a := 2*a;
           b := b/2;
     end
  end;

begin
  x := m;
  y := n;
  call mult;
end.
```

Output:

```
Source Program:
const m = 7, n = 85;
var  i,x,y,z,q,r;
procedure mult;
  var a, b;
  begin
     a := x;  b := y; z := 0;
     while b > 0 do
     begin
        if odd x then z := z+a;
           a := 2*a;
           b := b/2;
     end
  end;

begin
  x := m;
  y := n;
  call mult;
end.

Lexeme Table:
Lexeme          Token Type
const           28
m               2
=               9
```

```
7               3
,               17
n               2
=               9
85              3
;               18
var             29
i               2
,               17
x               2
,               17
y               2
,               17
z               2
,               17
q               2
,               17
r               2
;               18
procedure               30
mult            2
;               18
var             29
a               2
,               17
b               2
;               18
begin           21
a               2
:=              20
x               2
;               18
b               2
:=              20
y               2
;               18
z               2
:=              20
0               3
;               18
while           25
b               2
>               13
0               3
do              26
begin           21
if              23
odd             2
x               2
then            24
z               2
```

```
:=              20
z               2
+               4
a               2
;               18
a               2
:=              20
2               3
*               6
a               2
;               18
b               2
:=              20
b               2
/               17
2               3
;               18
end             22
end             22
;               18
begin           21
x               2
:=              20
m               2
;               18
y               2
:=              20
n               2
;               18
call            27
mult            2
;               18
end             22
.               19

Lexeme List:
28 2 m 9 3 7 17 2 n 9 3 85 18 29 2 i 17 2 x 17 2 y 17 2 z 17 2 q 17 2 r 18 30 2 mult
18 29 2 a 17 2 b 18 21 2 a 20 2 x 1
8 2 b 20 2 y 18 2 z 20 3 0 18 25 2 b 13 3 0 26 21 23 2 odd 2 x 24 2 z 20 2 z 4 2 a 18
2 a 20 3 2 6 2 a 18 2 b 20 2 b 17
3 2 18 22 22 18 21 2 x 20 2 m 18 2 y 20 2 n 18 27 2 mult 18 22 19
```