Cannot declare more than the max number of variables. I set the max to three.

```
mismith@robin:~/cs370/lab4/cs370_lab4> ./lab4
Type "help" to see commands and Instructions
int y;
Symbol inserted:"INT" "y" "0"
int hello;
Symbol inserted:"INT" "hello" "1"
int world;
Symbol inserted:"INT" "world" "2"
display
        TYPE            SYMBOL          ADDRESS
        INT             y               0
        INT             hello           1
        INT             world           2
int z;
At max number of variables
display
        TYPE            SYMBOL          ADDRESS
        INT             y               0
        INT             hello           1
        INT             world           2
```

Cannot declare a variable more than once.

```
mismith@robin:~/cs370/lab4/cs370_Lab4> ./lab4
Type "help" to see commands and Instructions
int y;
Symbol inserted:"INT" "y" "0"
int hello;
Symbol inserted:"INT" "hello" "1"
int world;
Symbol inserted:"INT" "world" "2"
display

        TYPE            SYMBOL          ADDRESS
        INT             y               0
        INT             hello           1
        INT             world           2
int z;
At max number of variables
display

        TYPE            SYMBOL          ADDRESS
        INT             y               0
        INT             hello           1
        INT             world           2
int hello;
variable already exists
display

        TYPE            SYMBOL          ADDRESS
        INT             y               0
        INT             hello           1
        INT             world           2
```

Cannot use a variable that does not exist.

```
mlsmith@robin:~/cs370/lab4/cs370_lab4> ./lab4
Type "help" to see commands and instructions
int y;
Symbol inserted:"INT" "y" "0"
int hello;
Symbol inserted:"INT" "hello" "1"
int world;
Symbol inserted:"INT" "world" "2"
display

        TYPE            SYMBOL          ADDRESS
        INT             y               0
        INT             hello           1
        INT             world           2
int z;
at max number of variables
display

        TYPE            SYMBOL          ADDRESS
        INT             y               0
        INT             hello           1
        INT             world           2
int hello;
variable already exists
display

        TYPE            SYMBOL          ADDRESS
        INT             y               0
        INT             hello           1
        INT             world           2
hello = w * 2
variable not in symbol table
variable does not exist
```

Can use a defined variable on both sides.

```
mismith@rabin:~/cs370/lab4/cs370_lab4> ./lab4
Type "help" to see commands and instructions
int y;
Symbol inserted:"INT" "y" "0"
int hello;
Symbol inserted:"INT" "hello" "1"
int world;
Symbol inserted:"INT" "world" "2"
display

        TYPE            SYMBOL          ADDRESS
        INT             y               0
        INT             hello           1
        INT             world           2
int z;
at max number of variables
display

        TYPE            SYMBOL          ADDRESS
        INT             y               0
        INT             hello           1
        INT             world           2
int hello;
variable already exists
display

        TYPE            SYMBOL          ADDRESS
        INT             y               0
        INT             hello           1
        INT             world           2
hello = w * 2
variable not in symbol table
variable does not exist
hello = 40
regs
        register        value
        0               0
        1               40
        2               0
hello = 40 + 20
regs
        register        value
        0               0
        1               60
        2               0
y = hello * 2
regs
        register        value
        0               120
        1               60
        2               0
```