CSC2302

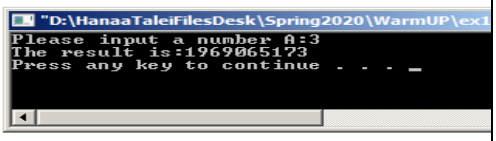
Review Session 1

Functions and Pointers

Exercise 1

The following code results in garbage output! Find out why?

```
#include<stdio.h>

int function(int);

main(){

    int A,square;

    printf("Please input a number A:");
    scanf("%d",&A);

    function(A);

    printf("The result is:%d\n",square);
 }
int function(int N){
   return(N*N);
}
```



Exercise 2

This is a code I am trying to use to draw a square of stars but didn't work for me! Re-write the code using your computers and try to fix the errors generated during compilation.

```
#include<stdio.h>
void draw_square(int);
main(){
  int side;

   printf("Please input the side of the square:");
   scanf("%d",&side);

  void draw_square(side);
 }
void draw_square(int s){

for(i=0;i<side;i++)
  {
   for(j=0;j<side;j++)
    printf("* ");
   printf("\n");
  }
}
```

Exercise 3

We want to use a function that computes the new price of an article after applying a reduction rate. Your execution should look like this:

Input the item price: 1500

Input the reduction rate: 25

The new price is: 1125

Exercise 4

Assume I have two grades in the main function called gr1 and gr2. We want to define a function that adds some bonus points to the two grades. A student got 2 pts extra for the first grade and 5pts for the second grade. Please print the old and the new values of gr1 and gr2 in the main function.

Exercise 5

In this exercise, we will use two functions:

From_Num_to_Letter(): a function that returns the correspondent grade letter (A,B,C,D,F or I (invalid)) for a particular grade.

Find_highest_lowest_avg(): a function that takes as input 3 grades then produce 3 output:

- The highest grade
- The lowest grade
- The average grade

We would like to use From_Num_to_Letter() to check what grade letter that corresponds to my grades average.
Your execution should look like this:
Input three grades: 78 45 69.5
Highest:78
Lowest: 45
Average:64.17 which is a D grade