Advanced C Programming and Lab
Preprocessors

1. Description.

- Solve following problems
- You don't have to submit them.
- Make sure that you understand meaning of codes performed.

[Problem 1] Define macro Y depending on value of macro X. If X equals to 4, define Y as 6, else as 10.

- Use *#if, #else, #endif, #define* statements.

[Problem 2] Define preprocessor function that takes integer as input and print outs the value of particular variable with this number.

- Choose general variable name, for example, var
- Create several variables with different numbers. Ex) var1, var2, var3, …, var7 = 705
- Suppose name of your function is func(). Pass integer to func().
- Output should be name and value of the variable with corresponding number.
- Note that in Example first column is not input example, but part of code.

Main Code Example 1	Output Example 1
func(7);	var7 = 705

[Problem 3] Define and print out macro twice. First time before main function and second time inside main function.

- Note that printf() function will not work outside main(), so use it inside main just before defining macro second time.
- In example below macro defined as 10 and 50. And you have not any inputs.

Input Example 1	Output Example 1
None	10 50

[Problem 4] What is the output of code below?

```
#include<stdio.h>
#define A -B
#define B -C
#define C 6

int main()
{
   printf("The value of A is %d\n", A);
   return 0;
}
```

[Problem 5] Define function to calculate square of integer. Use it inside main to perform some operations.