

c-sharp

HW #1

In console application :

- 1- Write a C# program that computes $y = \sin(2x) + 5\cos(x)$. The program should obtain the value of x from the user and prints the value of y .

Hint :: use **math libraries** .

- 2- Write a C# program that inputs two integers from the keyboard, and prints the sum, difference, product, and division to the screen .

Hint :: use **DataType.Parse**

```
Please Enter Two Numbers:
```

```
5
```

```
3
```

```
The Sum is : 8
```

```
The Difference is : 2
```

```
The Product is : 15
```

```
The Division is: 1
```

```
Remainder is : 2
```

3- Write a C# program to find the maximum and minimum number among three integer values entered by the user from the keyboard.

4- Write a C# program that accepts a person age and prints to which age category he/ she belongs as described in the table below :

Age Range	Category
0-14	Children
15-24	Youth
25-64	Adult
65 and above	Senior

Hint : **Use nested if else structure**

5- Write a program that accepts the number of the day of the week and displays the name of the corresponding day. Assume Day 1 is Saturday, Day 2 is Monday, and so on. For example if you have entered 1 as your day number, the program should display "The day is Saturday." as the output.

Hint : **(Use switch statement to solve the problem).**

- 6- Write a C# program to print the following shapes (each of them in different case) :

**

*

And

*

**

Hint : The number of rows for the previous shape is **N** (integer value read from the keyboard).

- 7- Write a C# program to read N characters, where N is a number read from the keyboard. Your program should keep reading characters from the keyboard until symbol # is entered or the number of entered characters equal N. After reading a character the program should print one of the following:

- ❖ **Capital**, if the entered character is capital.
- ❖ **Small**, if the entered character is small.
- ❖ **Digit**, if the entered character is digit
- ❖ **None**, otherwise

- Make an menu to access to each of case and it show just one time every choice and it must show Continuously(using while(true))