Exercise №4

Task №1. Write a C# program that finds the length of a string which is entered in the console, count the internal saved sequence of char objects.
Test data: ***Hello group!***
Result: ***12***
Task №2: Write a C# program that shows detailed information about today's date (year, month, day, hour, minutes, seconds).
Test data: ***(10.3.2019 12:15:45)***
Result: ***Year: 2019***
Month: 3
Day: 10
Hour: 12
Minutes: 15
Seconds: 45

Task №3: Write a C# program that reads two sentences from the console and checks if they are the same. Make the comparison symbol by symbol in a loop. Use Substring to get one symbol from the string.
Test data: sentence 1 = ***Hello!*** *, sentence 2 =* ***How are you?***
Result: ***The sentences are not the same.***
Task №4: Write a C# program that counts vowels and consonants in a sentence which is entered in the console.
Test data: ***development of application software systems***
*Result: vowels:****14****, consonants:****24***
Task №5: Write a C# program that gets the name of the day out of an entered date in the console. Enter separately a year, a month and a day. Create a Datetime variable out of the three numbers and print the Day of week.
*Test data: day=****03****; month =****03****; year=****2017****.*
Result: ***Friday***

Homework

Task №1: Write a C# program that takes an EGN from the console, checks its validity , prints the age in format: "years months days" and shows the control digit.
Test data: ***6101047500***
Result: ***54 years, 2 months, 26 days,: control digit:0***

Help: The first six numbers correspond to the birthday date (YYMMDD). The year from the birthday date are the first two numbers and there can be coded only between 1900 and 1999 year.
The other years are covered in the following way:

- for the born before 1st January 1900, the numeric value of the month sum with **20**.
- for the born after 31st December 1999 to 31st December 2099, the numeric value of the month sum with **40**.

The next three numbers (seven, eight and nine) contain information for provinces in Bulgaria and the sequence of the birth. If the ninth number is even, the person is male and if the number is odd – the person is female. The 7th and the 8th number are randomly generated.
The 10th number is control digit and can be calculated using the following algorithm:

- Every number should be multiplied by the relevant weight:

The weights of the separate numbers in the EGN									
Position	1	2	3	4	5	6	7	8	9
Weight	2	4	8	5	10	9	7	3	6

- Sum the products;
- The sum divide to 11;

- If an overage from the partition is smaller than 10, then we use it like control digit. If an overage from the partition is bigger than 10, the control digit is 0.