

# Business and Computer University College

CSI 211 Programming 1  
Tutorial

Sheet: 5

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1. Write a C++ program that prints all numbers from 1 up to 50 using the While structure.
2. Write a C++ program that enters characters and count the occurrences of A, B, C and D. use special character to end the program.
3. Write a C++ program that inputs two numbers and determine the sum of all even numbers bounded by these two numbers.
4. A certain program will print a very important message only if the user knows the secret letter (suppose the letter "s" small or capital). The program prompts the user to enter a letter. It prompts five times or until the code is correct which ever comes first. Write such a program.
5. Write a program that computes the average of a class, where the number of students in the class is entered by the user. Modify the above program so that it determines the maximum and the minimum grades of the class.
6. Write a C program that finds the factorial of a number using do/while structure. .( use the following formula)  
$$X! = 1*2*3*....*X$$
7. Write a program that determines the approximate value of the PI using the following series:  
$$Pi = 4 - 4/3 + 4/5 - 4/7 + 4/9 - 4/11 + \dots$$