Assignment No. 2

Building Blocks, Input and Output of C++

Aim

Implement the following statements:
 	
1) Write a C++ program and algorithm that estimates and prints monthly wages for a worker. User will input the gross payment amount. The total payment is estimated and finalized subsequent to the following deductions:
Income Tax: 10%
State Tax: 3%
Social Security Tax: 2%
Medicare Tax: 2.78%
Pension Plan: 6%
 	
2) Write a program that generates the following output:
<pre>CCCCCCCCC   ++   ++
CC   ++   ++
CC   ++++++++++++++   ++++++++++++++
CC   ++++++++++++++   ++++++++++++++
CC   ++   ++
CCCCCCCCC   ++   ++</pre>
(Do not write algorithm.)
 	
3) Write a a C++ program and algorithm that asks the user to enter the temperature in Fahrenheit and outputs the equivalent temperature in Celsius. The formula to convert the temperature is: Celsius = 5 / 9 * (Fahrenheit – 32).

Objective(s)	
1	To study the concept of a stream and examine input and output streams
2	To learn how to read data from the standard input device
3	To study input failures

Theory
1. Write an algorithm for swapping two values. 2. Write an algorithm to find the larger of two numbers. 3. Write an algorithm to find whether a number is even or odd. 4. Write an algorithm to find the sum of first N natural numbers. 5. A C++ program is required to calculate the value of distance, in miles, given this relationship: distance = average - speed × time a. For this programming problem, how many outputs are required? b. How many inputs does this problem have? c. Write an algorithm for converting the input items into output items. (Write the detailed answers to the theory questions and upload the handwritten scanned copy along with the code in the classroom.)

Conclusion