

## Problem Set 01 - Fundamentals - Part I

(Mandatory)

Write the following C++ programs in separate files such that the name of each file is in the format

`main1n.cpp`

where *n* is the number of the program in the list below.

### Programs:

1. Write a program that displays the message "Hello World".
2. Write a program that prompts the user to enter their name, then displays the message "Hello " followed by their name.
3. Write a program that displays the length of the hypotenuse of a right triangle after prompting the user to enter the other two sides.
4. Write a program that prompts the user to enter an integer; then, it states if the number is even or odd.
5. Write a program that prompts the user to enter an integer; then, it states if the number is positive, negative, or zero.
6. Write a program that prompts the user to enter an integer until the input is positive; then, it displays the smallest multiple of 4 greater than the number.
7. Write a program that prompts the user to enter an integer, then, if the integer is positive, it displays the input number of perfect squares starting from 1 on separate lines.