

Homework 1 is due Friday, October 7th at 5pm.

Late submission will not be accepted.

Problem 1: (Printing W) Write a program that prints exactly the following output to the console:

```
"Hello 'W'!"  
*****  
 \ / /  
  \ / \ /  
   \ \ /  
*****
```

Hint: To output quotation marks and backslashes, use special characters (escape sequences).

Problem 2: (Reverse and triple a three-digit integer)

Write a program that prompts users to enter a three-digit integer and output the reverse and triple of the three-digit integer. Assume that users always enter a valid positive three-digit integer. Your code should work for all three-digit integers (100 to 999).

If the user enters 100, the following results appear on the console.

```
Input a three-digit number (100 - 999):  
100  
The reverse of the number is 1.  
The triple of the number is 300.
```

If the user enters 789, the following results appear on the console.

```
Input a three-digit number (100 - 999):  
789  
The reverse of the number is 987.  
The triple of the number is 2367.
```

Hint: Read the input as an integer and use integer division and module to compute each digit of the number.

Instructions:

- All code must be written originally by yourself. You are not allowed to (even partially) copy code from anyone else, including code provided by TAs or instructor. Incident of cheating or plagiarism will be reported to the Dean's office and results in a zero grade in this assignment.

- (5pt) Write two programs to solve above questions. Name your files as `printw.cpp` and `number.cpp`. You must name the files EXACTLY as instructed, otherwise 5 points will be deducted. Submit your files to Gradescope.
- (5pt) Add declaration in the beginning of each cpp file to show the ownership. Please put your name, UID, and discussion section in a comment at the top of your source files (before the include statements). A sample description may look like:

```
/*
    PIC 10A Homework 1, number.cpp
    Author: John Doe
    UID: 111111111
    Discussion Section: 1A
    Date: 01/01/2022
*/
```

- (Problem 1 40pt & Problem 2 40pt) Code compiles with Visual Studio 2022 and solves the question. To receive full credits, the output must look EXACTLY the same as instructed above, including words, spaces, symbols, etc. If you do not code with Visual Studio 2022, make sure you double-check your code with Visual Studio 2022 before submission. Students will lose the majority of points if their code doesn't compile with VS 2022. (Computers in the PIC lab have installed with Visual Studio 2022).
- (10pt) Write your code with good practice, including using descriptive variable names, using concise and descriptive comments, including 'return 0;' in the end of your int main function, etc.
- Submit your assignment to Gradescope!