

清華大學 電機工程學系

107 學年度第一學期

EE-2310 計算機程式設計 (Introduction to Programming)

**Homework #4 (佔學期總成績 3 分)**

**(每人一組) Due on Nov. 22, 2018 @ the Lab Sesion**

**Late Homeworks will NOT be accepted !**

1. Write a C++ program to solve the following problem on reversing an integer array.

(Problem)

- (1) Use library function `rand()%20` to fill out an integer array of 9 elements, so that their values are all between 0 and 19.
- (2) Print out the array
- (3) Write a function `reverse_array()` that takes the above array as the input and reverse it. Note that this function has to call another sub-function, `swap()` to exchange the contents of two elements in the given array using **call-by-reference**. (Not that: it is advised that the reversal is done on the place, in a sense that it does not need to use any other array as the buffer).
- (4) Print out the array after the reversal and check if it is correct.

**(Results to be displayed on the screen):**

Hello world!

Original randomly generated Array : 1 7 14 0 9 7 18 18 2

Array after the reversal : 2 18 18 7 9 0 14 7 1