**計算機概論與程式設計**

**Homework 1 (Week 2)**

**Due date: 2020/10/8(Tur.) 23:55**

**1.**

Write a program that asks the user to enter a two-digit number, then prints the number with

its digits reversed. A session with the program should have the following appearance:

Enter a two-digit number: 28

The reversal is: 82

(You should read the number using %d, then break it into two digits. *Hint:*If n is an integer. then n%10 is the last digit in n and n/10 is n with the last digit removed.)

**2.**

Write a program that reads an integer entered by the user and displays it in octal (base 8):

Enter a number between O and 32767: 1953

In octal, your number is: 03641

The output should be displayed using five digits, even if fewer digits are sufficient.

*Hint:* To convert the number to octal, first divide it by 8; the remainder is the last digit of the octal number (1, in this case). Then divide the original number by 8 and repeat the process to arrive at the next-to-last digit. (printf is capable of displaying numbers in base 8, as we'll see in Chapter 7, so there's actually an easier way to write this program.)