C Language Programming: Homework #5
Assigned on 11/22/2016(Thuesday), Due on 11/29/2016(Thuesday)

Description:

1. Compute $(g+g)\%n$ and $g\times g\%n$ when g and n are unsigned integers?

2. Let g, h, n be unsigned integers, define $\boldsymbol{x \equiv g^h \bmod n}$, where x is the remainder of g^h divided by n. This problem asks you to write a fast program to compute x with given g, h, and n. You have to consider if the temporary results you compute can be stored in the variables of type *unsigned int*. Some of the sample inputs for g, h, and n are as follows: 2, 7, 127| 3, 4, 7| 22, 1234567, 4097| 25, 4194303, 32767| 31, 67108863, 65535

注意大數問題!!!!我們一定會測，這是這次作業的重點

Command Line:

輸入格式：
./hw5_1 (0 for add, 1 for multiplication) g n

Ex. ./hw5_1 0 3 4
Output : ans = 2

./hw5_2 g h n

Ex. ./hw5_2 5 2 4
Output : ans = 1

Score:

Hw5_1 : 40%(20% unsigned int範圍內運算, 20% overflow處理)
Hw5_2 : 40%(20% unsigned int範圍內運算, 20% overflow處理)
Report : 20%