

Homework 2  
Due 5pm, Wednesday, April 19, 2017

Submit `my_max.cpp` for problem 1 and `roman.cpp` for problem 2.

**Problem 1:** (Maximum)

Write a program that reads in  $n$  floating-point numbers and prints the largest of them. (Largest means most positive. So 5.1 is larger than  $-12.44$ .) The input and output should be exactly:

```
How many numbers do you have?
[USER ENTERS A POSITIVE INTEGER]
Input number (count 1):
[USER ENTERS A DECIMAL NUMBER]
Input number (count 2):
[USER ENTERS A DECIMAL NUMBER]
...
Input number (count X):
[USER ENTERS A DECIMAL NUMBER]
The maximum is X.
```

Assume the first input is indeed a positive integer. You may not use any libraries aside from `iostream` and `string`. Name your file `my_max.cpp`.

*Hint.* Use either a `for` or `while` loop.

**Problem 2:** (Roman numerals)

Write a program that converts an integer between 1 and 3999 into Roman numerals. The input and output should be exactly:

```
Input a number in Arabic numerals:
[USER ENTERS AN INTEGER BETWEEN 1 AND 3999]
XXXXXX is your number in Roman numerals.
```

Use the “standard form” described in:

[https://en.wikipedia.org/wiki/Roman\\_numerals](https://en.wikipedia.org/wiki/Roman_numerals)

Assume the input is indeed between 1 and 3999. You may not use any libraries aside from `iostream` and `string`. Name your file `roman.cpp`.

*Hint.* Treat each decimal digit separately (i.e., do the thousands, hundreds, tens, and ones separately) and concatenate the results.