pillar

Roman Numeral Calculator

For this programming exercise, you will be creating a library which will allow the addition and subtraction of Roman numerals. Once your solution is complete, please provide your solution as a Git repository (publicly available via Github or Bitbucket). Please include within your repository, all source and test code.

The solution will be reviewed for:
- Test coverage
- Test Driven Development
- Algorithm Usage
- Code structure
- Use of source control
- Completeness of the overall solution

The environment for this programming exercise <u>must</u> utilize:
- Ubuntu Linux 14.04
- The C programming language
- GNU GCC compiler tool chain
- GNU Make
- Check unit testing framework (https://libcheck.github.io/check/)
- git

Roman Numeral rules:
- Roman numerals consist of the following letters: I, V, X, L, C, D, and M which mean one, five, ten, fifty, hundred, five hundred and one thousand respectively.
- An example would be "XIV" + "LX" = "LXXIV"
- Numerals can be concatenated to form a larger numeral ("XX" + "II" = "XXII").
- If a lesser numeral is put before a bigger it means subtraction of the lesser from the bigger ("IV" means four, "CM" means ninehundred).
- If the numeral is I, X or C you can't have more than three ("II" + "II" = "IV" not "IIII").
- If the numeral is V, L or D you can't have more than one ("D" + "D" = "M" not "DD")
- The maximum roman numeral is 3999 (MMMCMXCIX)

<u>Stories</u>
User Story: Addition
As a Roman bookkeeper, I want to be able to add two numbers together. So that I can do my work faster with fewer mathematical errors.

User Story: Subtraction
As a Roman bookkeeper, I want to be able to subtract one number from another. So that I can do my work faster and with fewer mathematical errors.

This exercise is based on the Roman Numeral Calculator Kata at http://bit.ly/1VfHqlj
Please submit your test-driven solution via a public Git repository (github/bitbucket).