Intro to Unit Testing Lab

In this lab, we'll be running a code kata called the roman numeral kata.

The Romans were a clever bunch. They conquered most of Europe and ruled it for hundreds of years. They invented concrete and straight roads and indoor plumbing. But they never quite got their arms around the number zero. Their system of numbers is still used whenever we want a self-important way of numbering massive football events or copyrighting motion pictures.

The Romans wrote numbers using letters - I, V, X, L, C, D, M. (notice these letters have lots of straight lines and are hence easy to hack into stone tablets)

Roman	Decimal
I	1
V	5
X	10
L	50
C	100
D	500
M	1000

Roman numerals are written by expressing each digit separately starting with the leftmost digit and skipping any digit with a value of zero.

For example:
6 would be VI because 5=V, I=1
34 would be XXXIV because 30=XXX, 4=IV
49 would be XLIX because 40=XL, 9=IX (Note that it is not IL!)
478 would be CDLXXVIII because 400=CD, 70=LXX, 8=VIII
1990 would be MCMXC because 1000=M, 900=CM, 90=XC
2013 would be MMXIII because 2000=MM, 10=X, 3=III

The Kata says you should write a function to convert from decimal numbers to Roman numerals.

There is no need to be able to convert numbers larger than about 3000. (The Romans themselves didn't tend to go any higher)

Steps

1. Partner 1 describes a business requirement.

2. Partner 2 writes the failing test.

3. Partner 1 writes the most naïve implementation that causes the test to pass while Partner 2 is distracted writing a new requirement

4. Partner 1 refactors any other code he/she thinks can be improved, keeping all past tests green.

5. Switch roles and do it all over again