### SIENA COLLEGE

**25th Annual**

### High School Programming Contest

##### April 20, 2012

###### **Problem #3: 4 is my favorite number**

Background Information: The author of this problem states that the number 4 is his favorite number.

Given two integers x and y, your program will find the sum of all integers, between x and y (inclusive), whose digits exactly sum up to the number four. The numbers 4, 121, 103 and 4000 are valid numbers for a summation, while 41, 5364, and 255 are not.

###### Programming Problem:

Input: Two positive integers x and y, where y ≤ 1 billion, and where x ≤ y.

Output: The ***sum*** of the numbers z on the interval [x, y] such that the digits of z

add up exactly to the number 4.

###### Example 1: Input: **4 9**

###### Output: 4

###### Example 2: Input: **7 237**

###### Output: 1205

Example 3: Input: **57 186340292**

Output: 14333333200

Example 4: Input: **665785 823543**

Output: 0

