Difference Of Squares:Problem

Find the difference between the square of the sum of the digits and the sum of the squares of each digit for a given number.

Take the number 12345

The square of the sum of the digits is $(1 + 2 + 3 + 4 + 5)^2 = 15^2 = 225$.

The sum of the squares of the digits $1^2 + 2^2 + 3^2 + 4^2 + 5^2 = 55$

Hence the difference 225 - 55 = 170.

Assume you will need to read in a series of numbers which indicate a range (lower-upper) and determine for each of these ranges which numbers in the range have "Difference of Squares" greater than 150

Input (numbers.txt)
123 197
86 98
352 380

Output
Range -> 123 197
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179 has a difference of 158
188 has a difference of 160
189 has a difference of 178
197 has a difference of 158

Range -> 86 98

No differences greater than 150 for this range

Range -> 352 380
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358 has a difference of 158
359 has a difference of 174
367 has a difference of 162
368 has a difference of 180
369 has a difference of 198
376 has a difference of 162
377 has a difference of 182
378 has a difference of 202
379 has a difference of 222
