Practice Arena

Practice problems aimed to improve your coding skills.

- PRACTICE-02_SCAN-PRINT
- PRACTICE-03_TYPES
- LAB-PRAC-02_SCAN-PRINT
- LAB-PRAC-01
- PRACTICE-04_COND
- BONUS-PRAC-02
- LAB-PRAC-03_TYPES
- PRACTICE-05_COND-LOOPS
- LAB-PRAC-04_COND
- LAB-PRAC-05_CONDLOOPS
- PRACTICE-07_LOOPS-ARR
- LAB-PRAC-06_LOOPS
  - Fill in the Square
  - Pretty Numbers
  - Block Cipher
  - The Fibonacci Facade
  - Stream AM GM
  - Int on Int
  - Bejewelled Brooch
  - Mobile Mixup
  - Primes are in C
  - Towering Numbers
  - A Run of One
  - Where are the primes-
- LAB-PRAC-07_LOOPS-ARR
- LABEXAM-PRAC-01_MIDSEM
- PRACTICE-09_PTR-MAT
- LAB-PRAC-08_ARR-STR
- PRACTICE-10_MAT-FUN
- LAB-PRAC-09_PTR-MAT
- LAB-PRAC-10_MAT-FUN
- PRACTICE-11_FUN-PTR
- LAB-PRAC-11_FUN-PTR
- LAB-PRAC-12_FUN-STRUC
- LABEXAM-PRAC-02_ENDSEM
- LAB-PRAC-13_STRUC-NUM
- LAB-PRAC-14_SORT-MISC

Pretty Numbers

LAB-PRAC-06_LOOPS

Pretty Numbers [20 marks]

Problem Statement
Given a **strictly positive integer** N, on the first line, output K defined as the sum of the digits of N. Then output the smallest number strictly greater than N, that is a perfect square, and also divisible by K. For example, if N = 13, then the sum of digits of N is 1 + 3 = 4. The smallest perfect square divisible by 4 and strictly greater than 13 is 16, so the output should be
4
16

Caution

1. Be careful about extra/missing lines and extra/missing spaces.
2. Although it is not absolutely needed, you may use the log10() function by including math.h that can help you calculate the length, i.e. number of digits, of an integer.
3. Please note the unusual grading scheme for this question. The grading scheme is described below.

Grading Scheme:
Total marks: **[20 Points]**

There will be partial grading in this question. There are two lines in your output. Printing each line correctly, in the correct order, carries some weightage. The first line carries 25% weightage whereas the second line carries 75% weightage. Each visible test case is worth 2 points and each hidden test case is worth 4 points. There are 2 visible and 4 hidden test cases.

Please remember, however, that when you press Submit/Evaluate, you will get a green bar only if all parts of your answer are correct. Thus, if your answer is only partly correct, Prutor will say that you have not passed that test case completely, but when we do autograding afterwards, you will get partial marks.

Start Solving! (/editor/practice/6111)