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

Where are the primes-

LAB-PRAC-06_LOOPS

Where are the primes? [20 marks]

Problem Statement
An interesting result in number theory states that the difference between any strictly positive integer and the number formed by reversing its digits is always divisible by 9, hence the difference can never be prime. However, Mr. C is more interested in prime numbers, and hence decides to find a prime number just greater than this difference.

Given a **strictly positive integer** N as input, find the least prime number - P that is greater than the absolute difference between N and the number formed by reversing its digits. Print the absolute difference and P in two separate lines as output.

Caution

1. Be careful about extra/missing lines and extra/missing spaces.
2. 1 is not considered a prime
3. The number formed by reversing the digits of a number may be greater or smaller than the number itself.
4. You may use the abs function to calculate the absolute value of an integer. Include stdlib.h in case you do wish to use this function.
5. We assure you that the numbers we give you and the outputs, will always fit inside int.

INPUT:

OUTPUT:

EXAMPLE:
INPUT
37

OUTPUT:
36
37

Explanation: The number formed by reversing 37 is 73. The difference between 37 and 73 is 36. The prime number just larger than 36 is 37 itself.

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 50% 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/6121)