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

Primes are in C

LAB-PRAC-06_LOOPS

Primes are in C [20 marks]

Problem Statement
Prime factorization is an important topic in analytic and computational number theory. Any positive integer can be expressed as product of prime numbers. You will be given a **strictly positive integer** N, and you have to print two quantities on **two separate lines**

1. the number of divisors of N (including 1 and the number itself)
2. the sum of all prime divisors of N (including the number itself if N is itself prime)

Caution

1. In the first line, we want the number of all divisors (including 1 and the number itself). We do not care if the divisors are prime or not in this line.
2. In the second line, we want the sum of only the prime divisors of N (including the number itself).
3. 1 is not considered a prime number but 2 is considered a prime number
4. Be careful about extra/missing lines and extra/missing spaces.

EXAMPLE:
INPUT
4

OUTPUT:
3
2
Explanation 4 has 3 divisors 1, 2, 4, out of which only 2 is prime so sum of primes is just 2.

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/6118)