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
  - Forgetful Mr C
  - Rich Mr C
  - Perfect Numbers
  - Mr C builds a Calculator
  - Love for Primes
  - Tryst with Taylor
  - Mr C is very busy
  - Fabulous Fibonacci
  - Digit Debacle
  - May the fourth be with you
  - Phone a friend
  - The legend of Chess
- PRACTICE-07_LOOPS-ARR
- LAB-PRAC-06_LOOPS
- 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

Digit Debacle

LAB-PRAC-05_CONDLOOPS

Digit Debacle [20 marks]

Problem Statement
You will be given two **strictly positive integer** (i.e. positive and non-zero) N and another **non-negative integer** K. We promise that the integers will not contain any leading zeros i.e. we will never give you N as 0123 or 00123 -- instead we will always give N as 123 i.e. the first digit of N in the way we give it to you will always be non-zero. You will have output two things on **two different lines**

1. On the first line, print the number of digits in the number N
2. On the second line, print "YES" (without quotes) if the sum of the first K digits of N is greater than K*K. If not, print "NO" (without quotes).

Caution

1. Be careful about extra/missing lines and extra/missing spaces.
2. Be careful about the capitalization of the words YES and NO.
3. The number N we give you might not fit inside an int variable so use a long variable to store N.
4. Be careful that K may be zero as well

HINTS:

1. The function log10(n) available from math.h gives you back the base 10 logarithm of a number n. This function can help you in finding the number of digits in an integer n.
2. We can extract the first i.e. leading digit of any integer n by using the formula

$$(\text{int})(n/\text{pow}(10, len - 1))$$

where len is the number of digits in n.

EXAMPLE:
INPUT
125 2

OUTPUT:
3
NO

Explanation: The number of digits in 125 is 3. The sum of the first 2 digits is 3 which is not greater than 2*2 = 4 so the second answer is NO.

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/6085)