TCS QUESTIONS-29.09.2021

Q1. A chocolate distributor unit has installed two new automatic arms for the unloading the chocolate bars from containers. Arm A has the capacity to unload one chocolate bar whilst the other arm B unload two bars at a time. In order for any two containers to be unloaded fully and simultaneously by both arms, the distributors has to choose the correct chocolate bars quantity (quantity "X" for container unloaded by arm A and quantity "Y" container unloaded by arm B) in those containers from supplier.

The task to develop a code to identify a pair of container quantities (maximum quantity 5000) such that both arms unload all chocolate bars from those containers fully and complete their unloading simultaneously so the following containers can be placed for unloading automatically .

The correct pair identified can be marked as 'Yes'

And for incorrect pairs as 'No'.

Example 1:

Input:

100---Value of X 200---

Value of Y

Output:

Yes—Print Yes indicating 100 and 200 chocolate bars can be fully emptied simultaneously

Explanation:

Arm A unloads 100s bars in 100 times Arm B also unloads 200 bars

in 100 times ; hence both the containers are emptied at the same time and the next pair of containers can be automatically placed for unloading .

Hence, the output is a 'Yes'.

Q2. Number are everywhere around us, we deal with

Different types of number on a daily basis. There are real numbers, whole numbers, natural numbers, etc.

Another kind of numbers is called at strange numbers,

Which has following properties:

- A strange number is an integer number ‘N’ which has factors that are prime numbers.
- The square root of the number ‘N’ should be less than the greatest prime factor of
  ‘N’.
  The task here is to find out if the given number ‘N’ is strange or Not Strange.

  Example 1:

  Input:
  15---Value of N

  Output:

  Strange

  Explanation:
  From the inputs given above:
  N=15
  The prime factors of N are 3,5
  The greatest factor is 5.
  The square root of 15 is 3.87<5(the greatest
  prime factor 5).
  Hence, the output is Strange.

  Example 2:

  Input:
  25---Value of N

  Output:

  Not Strange

  Explanation:
  From the inputs given above:
  N=25
  The prime factors of N is 5.
  The greatest factor is 5.
  The square root of 25 is 5 which is not less than 5(the greatest prime factor N).
  Hence, the output is Not Strange.

Constraints:

- $0 < N <= 1000$

Input format for testing:

The candidate has to write the code to accept 1 input

- Input - Accept value for N(positive integer number).

Output format for testing:

- The output should be the message given in the problem statement (check the output in Example 1 and Example 2).
- Additional messages in the output will causes the failure of the test cases.

Instructions:

- The system does not allowed any kind of hard coded Input value/Values.
- The written program code by the canditade will be verified against the inputs which are supplied from the system.