Problem C. Cacho

Input:	Standard
Output:	Standard
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In Bolivia there is a very popular game called "Cacho". The game consists rolling five dices (a_1, a_2, a_3, a_4, a_5) and then annotate the result according to certain rules. This time we will focus on one case in particular: "escala". A "escala" is the scene in which the dices form a sequence of consecutive numbers. More formally a "escala" meets the property:

$$a_i + 1 = a_{i+1}, \quad 1 \le i \le 4$$

There are two types of "escala": a ordinary "escala" (it satisfy the property described above), and a "Escala Real" (when the scenery is 1, 3, 4, 5, 6. In the game this case is also a valid "scala").

Cael is a boy who is learning to play and wants you to help develop a program to check when five dices are forming a "escala". Note that the "Escala Real" is not a valid "escala" for Cael.

Input

The input begins with a number $T \le 100$, the number of test cases. Below are T lines, each with five numbers a_i ($1 \le a_i \le 6$) in no-decreasing order.

Output

In each case, if the five dices form a scale print in one line "Y". Otherwise print in one line "N" (quotes for clarity).

Example

Input	Output
5	Y
1 2 3 4 5	Y
2 3 4 5 6	N
1 4 4 4 5	N
1 3 4 5 6	N
1 2 2 3 6	