Hmmmmmm...... strings again :) Then it must be an easy task for you. Well ... you are given with a string S of length not more than 100,000 (only 'a'-'z' and 'A'-'Z'). Then follows q (q < 1000) queries where each query contains a string T of maximum length 1,000 (also contains only 'a'-'z' and 'A'-'Z'). You have to determine whether or not T is a sub-string of S.

Input

First line contains an integer k (k < 10) telling the number of test cases to follow. Each test case begins with S. It is followed by q. After this line there are q lines each of which has a string T as defined before.

Output

For each query print 'y' if it is a sub-string of S or 'n' otherwise followed by a new line. See the sample output below.

Sample Input

2 abcdefghABCDEFGH 2 abc abAB xyz 1 xyz

Sample Output

- y n
- 1
- у