

// You must submit a problem with full explanation:

Once there was a lottery system started. In every lottery ticket, there was a number based on which winner was selected. One of the hacker hacked the algorithm that was used to select the winner. The algorithm was simply easy. According to this algorithm, all the sub numbers that are derived from the lottery number must remain the sub number of the lottery number even if they are reversed. If these criteria are satisfied then the lottery number is selected as the winner. Your task is to create a program to identify whether the given lottery number wins or not.

INPUT:

Input contains T number of test cases. For each for each test case N is given which signifies the lottery ticket number.

Range:

$0 < T < 100$

$0 < N < 10^{18}$

OUTPUT:

Each line contains the answer 'YES' or 'NO' in all capital letters without any quotations. YES signifies the lottery ticket number is a winner whereas NO signifies the lottery ticket number is not a winner.

SAMPLE:

INPUT:

2

12321

1234

OUTPUT:

YES

NO

EXPLANATION:

Case 1. Here all the sub numbers of 12321 are 1, 12, 123, 1232, 12321, 2, 23, 232, 2321, 3, 32, 321, 21 and if all these numbers are reversed then we obtain the numbers 1, 21, 321, 2321, 12321, 2, 32, 232, 2321, 3, 23, 123, 12 which are also the sub numbers of given lottery number 12321. So, this lottery ticket number wins.

Case 2. Here all the sub numbers of 1234 are 1, 12, 123, 1234, 2, 23, 234, 3, 34, 4 and if all these numbers are reversed then we obtain the numbers 1, 21, 321, 4321, 2, 32, 432, 3, 43, 4 but here the sub numbers after reversing like 21, 321, 4321, 32, 432, 43 are not the sub numbers of the given lottery number 1234. So, this lottery ticket number does not win.

// You must also submit a valid program in any one language. For above problem a C program is written:

```
#include<stdio.h>
int main(){
    long long n, rev, copy;
    int t, i;
    scanf("%d", &t);
    for(i=0; i<t; i++){
        scanf("%lld", &n);
        copy = n;
        rev=0;
        while(copy>0){
            rev = rev*10 + (copy%10);
            copy = copy/10;
        }
        if(rev==n){
            printf("YES\n");
        }
        else{
            printf("NO\n");
        }
    }
    return 0;
}
```

//Along with the code you must also submit a sample input and output. For above program sample input and output is:

INPUT:

10
1234321
12345678912345678
12345678987654321
98765432123456789
876234876234
876234432678
123454321
9090909090909
876543212345678
765765765

OUTPUT:

YES
NO
YES
YES
NO
YES
YES
YES
YES
NO

//You must also submit brief explanation on how to solve the problem. For above problem brief explanation is:

#BRIEF EXPLANATION:

This problem can be solved easily by following two steps mentioned below:

- ➔ Arrange the given sequence of characters in ascending or descending order using quick sort algorithm, must use quicksort otherwise time limit will be exceeded.
- ➔ Find the middle character from the sequence after arranging.
- ➔ Print the sequence of character to form the name.