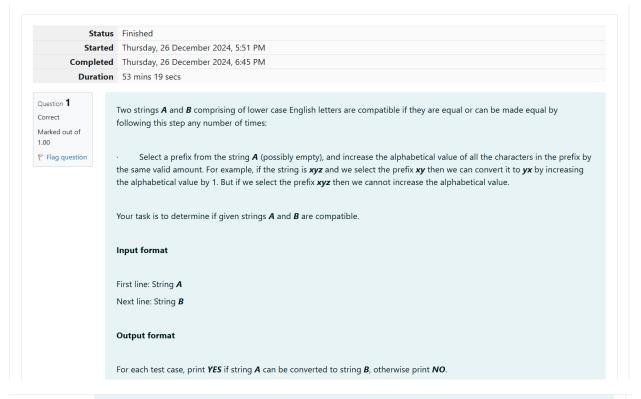
Week-11-String Handling Functions

CODING

ROLL NO: 241801294

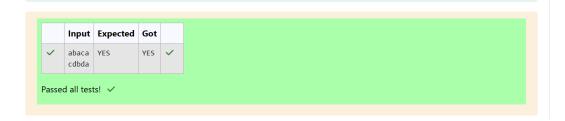
NAME: THARUN N

Q1)



Constraints
1 ≤ len(A) ≤ 1000000
$1 \le len(B) \le 1000000$
SAMPLE INPUT
abaca
cdbda
SAMPLE OUTPUT
YES
Explanation
The string <i>abaca</i> can be converted to <i>bcbda</i> in one move and to <i>cdbda</i> in the next move.

```
#include<stdio.h>
    #include<string.h>
    #include<stdbool.h>
    bool are_compatible(char a[], char b[]) {
        int lenA = strlen(a);
 6
        int lenB = strlen(b);
 8
        if (lenA != lenB) {
9 .
10
            return false;
11
12
13 ,
        for (int i = 0; i < lenA; i++) {
14 🔻
            if (a[i] > b[i]) {
15
                return false;
16
17
18
19
        return true;
20
    }
21
22
   int main() {
        char b[1000001];
23
24
25
        scanf("%s", a);
scanf("%s", b);
26
27
28
        if (are_compatible(a, b)) {
29 1
30
            printf("YES\n");
31 1
        } else {
32
            printf("NO\n");
33
34
35
        return 0;
36 }
```



Q2)

Question **2**Correct
Marked out of 1.00

Flag question

Danny has a possible list of passwords of Manny's facebook account. All passwords length is odd. But Danny knows that Manny is a big fan of palindromes. So, his password and reverse of his password both should be in the list.

You have to print the length of Manny's password and it's middle character.

Note: The solution will be unique.

INPUT

The first line of input contains the integer N, the number of possible passwords.

Each of the following N lines contains a single word, its length being an odd number greater than 2 and lesser than 14. All characters are lowercase letters of the English alphabet.

OUTPUT The first and only line of output must contain the length of the correct password and its central letter.

CONSTRAINTS

 $1 \le N \le 100$

SAMPLE INPUT

4 abc def

feg cba

SAMPLE OUTPUT

3 k

```
Answer: (penalty regime: 0 %)
   1 #include<stdio.h>
        #include<string.h>
        #include<stdlib.h>
   6 v void rev(char c[], const char a[]) {
    int len = strlen(a);
            for (int i = 0; i < len; i++) {
   9 ,
            c[i] = a[len-i-1];
  10
  11
  12
            c[len] = '\0';
  13
  14
  15
  16
        int che(const char a[], const char b[]) {
  17
            return strcmp(a, b);
  18
  19
  20
        int main() {
  21
            int a;
scanf("%d", &a);
  22
  23
  24
            char** b = (char**)malloc(a*sizeof(char*));
  25
            for (int i = 0; i < a; i++) {
   b[i] = (char*)malloc(14*sizeof(char));
   scanf("%s", b[i]);</pre>
  26
27
  28
  29
  30
  31
             for (int i = 0; i < a; i++) {
  32
                 char x[14];
  33
                 rev(x, b[i]);
                 for (int j = 0; j < a; j++) {
    if ( i == j )
  34
  35
   36
                           continue;
                      if (che(x, b[j]) == 0) {
   printf("%ld %c", strlen(b[j]), b[j][(strlen(b[j])-1)/2]);
   return 0;
  37
   38
   39
```

×	E	E	×	×	¢	¢	K	×		K	•	•	F	p	е	•	С	t	(2	d	ı		G	i	of	t		
	3	3										ł	b)										3		b		~	•

Question **3**Correct
Marked out of

1.00

F Flag question

Joey loves to eat Pizza. But he is worried as the quality of pizza made by most of the restaurants is deteriorating. The last few pizzas ordered by him did not taste good: (. Joey is feeling extremely hungry and wants to eat pizza. But he is confused about the restaurant from where he should order. As always he asks Chandler for help.

Chandler suggests that Joey should give each restaurant some points, and then choose the restaurant having **maximum points**. If more than one restaurant has same points, Joey can choose the one with **lexicographically smallest** name.

Joey has assigned points to all the restaurants, but can't figure out which restaurant satisfies Chandler's criteria. Can you help him out?

Input:

First line has N, the total number of restaurants.

Next N lines contain Name of Restaurant and Points awarded by Joey, separated by a space. Restaurant name has **no spaces**, all lowercase letters and will not be more than 20 characters.

Output:

Print the name of the restaurant that Joey should choose.

Constraints:

1 <= Points <= 10⁶

SAMPLE INPUT

3

Pizzeria 108

Dominos 145

Pizzapizza 49

SAMPLE OUTPUT

Dominos

Explanation

Dominos has maximum points.

```
Answer: (penalty regime: 0 %)
   1 #include<stdio.h>
        #include<string.h>
        #include<stdlib.h>
    4
        typedef struct {
   5 -
            char name[21];
   6
            int points;
       } Restaurant;
   8
   9
  int compare(const void *a, const void *b) {
Restaurant *restA = (Restaurant *)a;
Restaurant *restB = (Restaurant *)b;
   13
            if (restA->points != restB->points) {
   14
   15
                return restB->points - restA->points;
   16
   17
            return strcmp(restA->name, restB->name);
   18
   19
   20
        int main() {
   21
            scanf("%d", &n);
   22
   23
            Restaurant \ *restaurants = (Restaurant \ *) malloc(n \ * \ sizeof(Restaurant));
   24
   25
            if (restaurants == NULL) {
   26
                printf("Memory allocation failed\n");
   27
                 return 1;
   28
            }
   29
            for (int i = 0; i < n; i++) {
    scanf("%s %d", restaurants[i].name, &restaurants[i].points);</pre>
   30
   31
   32
   33
   34
            qsort(restaurants, n, sizeof(Restaurant), compare);
   35
   36
            printf("%s\n", restaurants[0].name);
   37
   38
            free(restaurants);
   39
```

	Input	Expected	Got	
~	3 Pizzeria 108 Dominos 145 Pizzapizza 49	Dominos	Dominos	~

Passed all tests! ✓

Question **4**Correct
Marked out of 1.00

Friag question

These days Bechan Chacha is depressed because his crush gave him list of mobile number some of them are valid and some of them are invalid. Bechan Chacha has special power that he can pick his crush number only if he has valid set of mobile numbers. Help him to determine the valid numbers.

You are given a string "S" and you have to determine whether it is Valid mobile number or not. Mobile number is valid only if it is of length 10, consists of numeric values and it shouldn't have prefix zeroes.

Input:

First line of input is T representing total number of test cases.

Next T line each representing "S" as described in in problem statement.

Output:

Print "YES" if it is valid mobile number else print "NO".

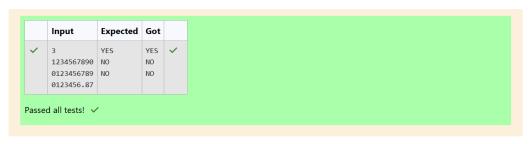
Note: Quotes are for clarity.

Constraints:

```
1 \le T \le 10^3
sum of string length \le 10^5
```

```
SAMPLE INPUT
3
1234567890
0123456789
0123456.87
SAMPLE OUTPUT
YES
NO
NO
Answer: (penalty regime: 0 %)
    1 #include<stdio.h>
       #include<string.h>
       #include<ctype.h>
        void check_mobile_number(char s[]) {
            if (strlen(s) != 10 || !isdigit(s[0]) || s[0] == '0') {
                printf("NO\n");
   8
                 return;
   9
            for (int i = 0; i < 10; i++) {
    if (!isdigit(s[i])) {
        printf("NO\n");
    }
}</pre>
  10
  11
  12
  13
                     return;
  14
  15
            printf("YES\n");
  16
```

```
for (int 1 = 0; 1 < 10; 1++) {
    if (!isdigit(s[i])) {
        printf("NO\n");
        return:</pre>
10 v
11 v
12
                         return;
13
             }
14
15
16
             printf("YES\n");
17 }
18
19 v int main() {
             int t;
scanf("%d", &t);
char s[20];
20
21
22
23
             for (int i = 0; i < t; i++) {
    scanf("%s", s);
    check_mobile_number(s);</pre>
24 ·
25
26
27
 28
 29
             return 0;
 30 }
```



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