

Practice (/) BETA

Sudo Placement [1.1] (/contest/sudo-placement-11/)

Hello

vish_14

(https://auth.geeksforgeeks.org/user/vish_14/practice/)

PROBLEMS	SUBMISSIONS	LEADERBOARD
(HTTPS://PRACTICE.GEEKSFORGEEKS.ORG/CONTEST/SUDO-PLACEMENT-11/PROBLEMS/)	(HTTPS://PRACTICE.GEEKSFORGEEKS.ORG/CONTEST/SUDO-PLACEMENT-11/SUBMISSIONS/)	(HTTPS://PRACTICE.GEEKSFORGEEKS.ORG/CONTEST/SUDO-PLACEMENT-11/LEADERBOARDS/)
SUMMARY		
(HTTPS://PRACTICE.GEEKSFORGEEKS.ORG/CONTEST/SUDO-PLACEMENT-11/SUMMARY/)		
SP - Palindrome Family (https://practice.geeksforgeeks.org/contest-problem/sp-palindrome-family/0/)		
SP - Special Subsequences (https://practice.geeksforgeeks.org/contest-problem/sp-trip-k-lets/0/)		
SP - Range Queries (https://practice.geeksforgeeks.org/contest-problem/sp-range-queries/0/)		

Your Total Score:

0

SP - Special Subsequences

Submissions: 527 Accuracy: 37% Max. Score: 30

Given a string **S**, print all '**Special Subsequences**' of **S**. A special subsequence is a subsequence of given string with capital letters allowed. A **Subsequence** is a sequence that can be derived from given string by removing zero or more elements, without changing the order of the remaining elements. For example subsequences of **abc** are {**a, b, c, ab, ac, bc, abc**}. To generate Special Subsequences, we need to consider both the upper and lowercases and their combination. For Instance, "**ab**" has the following Special-Subsequences-: { "**A**", "**AB**", "**Ab**", "**B**", "**a**", "**aB**", "**ab**", "**b**" }.

NOTE : Consider only the non-empty Special Subsequences of **S**, as shown above.

Input : The first line of input contains number of testcases **T**. Each testcase contains a single line denoting the string **S**.

Output : For each testcase you need to print two lines. In the **1st** line print **N**, denoting the number of Special Sub Sequences of **S**.

In the **2nd** line print **N** space separated integers denoting the Special Sub Sequences of **S**, in lexicographically increasing order.

Constraints

1 <= T <= 100

1 <= |S| <= 10

The String S, contains only lower-case letters (i.e 'a' - 'z')

Example :

Input :

2
ab
abc

Output :

8
A AB Ab B a aB ab b
26
A AB ABC ABc AC Ab AbC Abc Ac B BC Bc C a aB aBC aBc aC ab abC abc ac b bC bc c

Explanation :




Self Explanatory



[My submissions](#)[\(/problem_submissions.php?pid=3511&isSolved=ALL&lang=ALL&user=Self\)](https://problem_submissions.php?pid=3511&isSolved=ALL&lang=ALL&user=Self)

Theme Light ▼

C++ (g++ 5.4) ▼

 (<https://auth.geeksforgeeks.org/edit-profile.php>)   

```

1 #include<iostream>
2 using namespace std;
3 int main()
4 {
5     //code
6     return 0;
7 }

```

☐ Test against custom input

Submissions are closed for this Contest problem.

[\(https://www.geeksforgeeks.org/\)](https://www.geeksforgeeks.org/)

A computer science portal for geeks

710-B, Advant Navis Business Park,
Sector-142, Noida, Uttar Pradesh - 201305
feedback@geeksforgeeks.org

COMPANY[About Us \(https://www.geeksforgeeks.org/about/\)](https://www.geeksforgeeks.org/about/)[Careers \(https://www.geeksforgeeks.org/careers/\)](https://www.geeksforgeeks.org/careers/)[Privacy Policy \(https://www.geeksforgeeks.org/privacy-policy/\)](https://www.geeksforgeeks.org/privacy-policy/)[Contact Us \(https://www.geeksforgeeks.org/about/contact-us/\)](https://www.geeksforgeeks.org/about/contact-us/)**LEARN**[Algorithms \(https://www.geeksforgeeks.org/fundamentals-of-algorithms/\)](https://www.geeksforgeeks.org/fundamentals-of-algorithms/)[Data Structures \(https://www.geeksforgeeks.org/data-structures/\)](https://www.geeksforgeeks.org/data-structures/)[Languages \(https://www.geeksforgeeks.org/category/program-output/\)](https://www.geeksforgeeks.org/category/program-output/)[CS Subjects \(https://www.geeksforgeeks.org/articles-on-computer-science-subjects-gq/\)](https://www.geeksforgeeks.org/articles-on-computer-science-subjects-gq/)[Video Tutorials \(https://www.youtube.com/geeksforgeeksvideos/\)](https://www.youtube.com/geeksforgeeksvideos/)**PRACTICE**[Company-wise \(https://practice.geeksforgeeks.org/company-tags/\)](https://practice.geeksforgeeks.org/company-tags/)[Topic-wise \(https://practice.geeksforgeeks.org/topic-tags/\)](https://practice.geeksforgeeks.org/topic-tags/)[Contests \(https://practice.geeksforgeeks.org/contests/\)](https://practice.geeksforgeeks.org/contests/)[Subjective Questions \(https://practice.geeksforgeeks.org/subjective-page.php\)](https://practice.geeksforgeeks.org/subjective-page.php)[How to begin? \(https://practice.geeksforgeeks.org/faq.php\)](https://practice.geeksforgeeks.org/faq.php)**CONTRIBUTE**[Write an Article \(https://www.geeksforgeeks.org/contribute/\)](https://www.geeksforgeeks.org/contribute/)[Interview Experience \(https://www.geeksforgeeks.org/write-interview-experience/\)](https://www.geeksforgeeks.org/write-interview-experience/)[Internships \(https://www.geeksforgeeks.org/internship/\)](https://www.geeksforgeeks.org/internship/)[Videos \(https://www.geeksforgeeks.org/how-to-contribute-videos-to-geeksforgeeks/\)](https://www.geeksforgeeks.org/how-to-contribute-videos-to-geeksforgeeks/)

[\(https://www.facebook.com/geeksforgeeks.org/\)](https://www.facebook.com/geeksforgeeks.org/) [\(https://in.linkedin.com/company/geeksforgeeks\)](https://in.linkedin.com/company/geeksforgeeks) [\(https://play.google.com/store/apps/details?id=free.programming.programming&hl=en\)](https://play.google.com/store/apps/details?id=free.programming.programming&hl=en) [\(https://twitter.com/geeksforgeeks\)](https://twitter.com/geeksforgeeks) [\(https://www.youtube.com/geeksforgeeksvideos\)](https://www.youtube.com/geeksforgeeksvideos)

@geeksforgeeks, Some rights reserved (<https://creativecommons.org/licenses/by-sa/4.0/>)

