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EXAM DATE OCT 15   ⚜ CODECHEF CERTIFIED ⚜ DATA STRUCTURES AND ALGORITHMS PROGRAMME (CCDSAP)   ENROLL NOW

Chef and a great voluntary Program   Problem Code: **CHEFGP**

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Read problems statements in **mandarin chinese
(http://www.codechef.com/download/translated/OCT17/mandarin/CHEFGP.pdf)**,
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(http://www.codechef.com/download/translated/OCT17/russian/CHEFGP.pdf)**
and **vietnamese
(http://www.codechef.com/download/translated/OCT17/vietnamese/CHEFGP.pdf)**
as well.

Chef likes to eat apples and bananas a lot. Today, he is doing a voluntary service by
providing these fruits to needy people in a lunger (a gathering of needy people). The
people form a queue to collect fruits from Chef. Chef distributes each person one of the
fruits either an apple or a banana.

You are given information about the way Chef distributed fruits to the people by a string
s, whose each character is either 'a' or 'b' denoting whether the corresponding person
was distributed an apple or a banana.

After the event Chef wants to analyze what he could have done to make the event
memorable. The event will be memorable if everyone at the end is happy. A person in
the queue observes what kind of fruits people ahead in the queue are getting. If he sees
that **K** or more persons immediately ahead of him have got the same fruit which he got,
then he becomes disgruntled. To quell him, Chef needs to give kiwis to him. Such a
person becomes happy as he got at least some extra kiwis. Since the kiwis are costly,
Chef would want to minimize the number of kiwis he needed to distribute.

The value of **K** if the person is getting an apple is **x**, and similarly **y** for banana.

Help Chef in finding a way of distributing the fruits to the people that make everyone
happy.

Input

The first line of the input contains an integer **T** denoting the number of test cases.

The first line of each test case contains the string **s**.

The second line contains two space separated integers **x, y**.

Output

For each test case, output a single string corresponding to the way in which the fruits
should be distributed to the people. Apple fruit is denoted by 'a', banana by 'b', and kiwi
by '*'. If there are more than one possible solutions, you can print any. Note that the
number of apples in the output should be equal to the number of apples in the initial
distributions of fruits denoted by string **s**. Same goes for bananas.

Constraints

- **1 ≤ T ≤ 50**
- **1 ≤ |s| ≤ 10^5**

- $1 \le x, y \le |s|$

Subtasks

- **Subtask #1 (20 points)**: $x = y = 1$
- **Subtask #2 (30 points)**: $1 \le |s| \le 10^3$
- **Subtask #3 (50 points)**: Original constraints

Example

```
Input
5
ab
1 1
aab
1 1
aabb
1 2
aaaaab
2 1
aaaa
1 3

Output
ab
aba
abba
aa*abaa
a*a*a*a
```

Explanation

Example 1. The way of distributing fruits already makes everyone happy.

Example 2. The second person will be disgruntled as he receives apple same as the person ahead of him. One possible way of having good impression is to distribute in the order aba.

Example 4. It's impossible for the Chef to make everyone happy without buying extra kiwi fruits. Chef will buy one extra kiwi fruit. Now, he distributes aa*abaa, i.e. apple to first and second, kiwi and apple to third, banana to fourth, and apples to fifth and sixth persons. This makes everyone happy.

Author:	berezin (/users/berezin)
Tester:	7★ alex_2oo8 (/users/alex_2oo8)
Date Added:	6-10-2014
Time Limit:	2 secs
Source Limit:	50000 Bytes
Languages:	ADA, ASM, BASH, BF, C, C99 strict, CAML, CLOJ, CLPS, CPP 4.3.2, CPP 6.3, CPP14, CS2, D, ERL, FORT, FS, GO, HASK, ICK, ICON, JAVA, JS, LISP clisp, LISP sbcl, LUA, NEM, NICE, NODEJS, PAS fpc, PAS gpc, PERL, PERL6, PHP, PIKE, PRLG, PYPY, PYTH, PYTH 3.5, RUBY, SCALA, SCM guile, SCM qobi, ST, TCL, TEXT, WSPC

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CodeChef was created as a platform to help programmers make it big in the world of algorithms, **computer programming** and **programming contests**. At CodeChef we work hard to revive the geek in you by hosting a **programming contest** at the start of the month and another smaller programming challenge in the middle of the month. We also aim to have training sessions and discussions related to **algorithms**, **binary search**, technicalities like **array size** and the likes. Apart from providing a platform for **programming competitions**, CodeChef also has various algorithm tutorials and forum discussions to help those who are new to the world of **computer programming**.

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Try your hand at one of our many practice problems and submit your solution in a language of your choice. Our **programming contest** judge accepts solutions in over 35+ programming languages. Preparing for coding contests were never this much fun! Receive points, and move up through the CodeChef ranks. Use our practice section to better prepare yourself for the multiple **programming challenges** that take place through-out the month on CodeChef.

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Here is where you can show off your **computer programming skills**. Take part in our 10 day long monthly coding contest and the shorter format Cook-off **coding contest**. Put yourself up for recognition and win great prizes. Our **programming contests** have prizes worth up to INR 20,000 (for Indian Community), $700 (for Global Community) and lots more CodeChef goodies up for grabs.

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