Unbreakable Code

Little Jimmy and Little Johnny are two playful little brothers. They were playing army bases one day, and realized they couldn't just yell across the battlefield their plans for attacking the enemy base, so they started writing their plans down. But the evil Dr. Evil kept stealing their letters and easily fending off their attacks! So Little Jimmy decided to make up a way to encode their messages! They would pick three numbers, A, B, and C and then go through the message, take the first A letters, and rotate them to the right B times (rotating the last letter in the group to the front). They then skip C letters, and repeat the process. In the event that there aren't enough letters, they just take what is left and rotate them anyways. What a brilliant plan! Little Jimmy sent Little Johnny the encoded plans, but before Little Jimmy could tell Little Johnny how to decode the plans, mother called them to bed. In the morning, Little Jimmy forgot how he encoded his plans. Now they are turning to you to help them decode their plans and defeat Dr. Evil once and for all!

Input

Input begins with a single number, S, the number of segments in Little Jimmy's plan. Each segment consists of two lines: the first line contains 3 non-negative integers, 0 <= A, B, C <= 1,000,000 and the second line contains the encoded message. The line containing the message will contain only alphanumeric characters, spaces and periods, no longer than 200 characters long. It is guaranteed that at least A or C will be positive.

Output

Output the decoded messages for each segment in the plan. Separate each test case with a blank line.

Sample Input

```
2
3 1 1
lHelbo rhote r.Wse hlouda wift onr atp iem
4 2 2
foBerett aacngki D Er.vil
```

Sample Output

```
Hello brother. We should wait for nap time

Before attacking Dr. Evil
```