Password Backup

Jojo was in the ruins of an ancient Aztec, there he found many treasures. Among all the treasures, there is one very interesting treasure. But the treasure can only be opened with a certain password based on the clue obtained. The clue contained several numbers to open the treasure.

These numbers can be converted into a combination of characters using string *key* which is the key dictionary of the treasure. This clue refers to a sequence of position in the *key* string, which if all the character that have been translated are being combined into one string, it will form a string *S* which is the password needed to the treasure. You are one of Jojo's ancient Aztec scientists, help him crack this code!

Format Input

The first line contains *T*, the number of test cases.

Each test case consists of 3 lines:

The 1st line is the string *key*, the key dictionary (case sensitive).

The 2nd line contains *L*, the amount of clue.

The next line consists of *L* number, *Ci* the clue for the password. It is guaranteed that *Ci* doesn't exceed the length of the key.

Format Output

For each test case output "Case #*X*:", where *X* is the case number, followed by a string *S*, the password needed to open the treasure.

Constraints

$1 \leq T \leq 100$
$1 \leq |key| \leq 70$
$1 \leq L \leq 100$
$1 \leq Ci \leq |key|$

Sample Input	Sample Output
3 ABCDE 3 1 3 5 ABCDEFGHIJKLMNOPQRSTUVWXYZ 5 2 9 14 21 19 AbCdEfG 7 7 6 5 4 3 2 1	Case #1: ACE Case #2: BINUS Case #3: GfEdCbA