Fibo String

Jojo is learning a series called Fibonacci series where $fib[n] = fib[n-1] + fib[n-2]$. Jojo wondered what if this Fibonacci series was applied to characters, where $S[n] = S[n-1] + S[n-2]$. For example if Jojo has $S[0] = a$ and $S[1] = b$ then $S[2] = ba$, $S[3] = bab$, $S[4] = babba$ and so on.

Format Input

Inputs start with integer T which is the number of test cases. The next T line contains the integer n, which is the n-th Fibonacci sequence in question followed by two characters $S[0]$ and $S[1]$. $S[0]$ and $S[1]$ is guaranteed to be only 1 alphabetical letter.

Format Output

The answer begins with the format "Case $\#X$: $S[n]$" where X is the number of test cases and $S[n]$ is the n-th order Fibonacci value.

Constraints

- $1 \leq T \leq 100$
- $1 \leq n \leq 15$

Sample Input 1 (standard input)

```
3
2 a b
3 a b
4 a b
```

Sample Output 1 (standard output)

```
Case #1: ba
Case #2: bab
Case #3: babba
```

Sample Input 2 (standard input)

```
3
2 c d
4 a a
2 b b
```

Sample Output 2 (standard output)

```
Case #1: dc
Case #2: aaaaa
Case #3: bb
```

Fibo String

Jojo sedang belajar sebuah deret yang disebut dengan deret fibonacci dimana $fib[n] = fib[n-1] + fib[n-2]$. Jojo penasaran bagaimana jika deret fibonacci ini diterapkan kepada karakter, dimana $S[n] = S[n-1] + S[n-2]$. Contohnya jika Jojo memiliki $S[0] = a$ dan $S[1] = b$ maka $S[2] = ba$, $S[3] = bab$, $S[4] = babba$ dan seterusnya.

Format Input

Input diawali dengan bilangan bulat T yaitu banyaknya kasus uji. T baris berikutnya berisi integer n, yaitu urutan fibonacci ke-n yang ditanya diikuti dengan dua buah karakter $S[0]$ dan $S[1]$. $S[0]$ dan $S[1]$ dijamin hanya berupa 1 buah huruf alfabet.

Format Output

Jawaban diawali dengan format "Case #X: $S[n]$" di mana X adalah jumlah kasus uji dan $S[n]$ adalah nilai fibonacci urutan ke-n.

Constraints

- $1 \leq T \leq 100$
- $1 \leq n \leq 15$

Sample Input 1 (standard input)

```
3
2 a b
3 a b
4 a b
```

Sample Output 1 (standard output)

```
Case #1: ba
Case #2: bab
Case #3: babba
```

Sample Input 2 (standard input)

```
3
2 c d
4 a a
2 b b
```

Sample Output 2 (standard output)

```
Case #1: dc
Case #2: aaaaa
Case #3: bb
```