

Strange Planet

Right now Lili is in a strange planet and she wants to study the calendar system of said planet. Each year on the planet consists of N months and each month on the planet consists of exactly K days. Bibi arrived on the planet on the first day of the first month, and now she has T questions: What's the month and date on Bibi's A_i -th day on the planet? Help her to answer the questions!

Format Input

The first line contains the numbers N and K . The next N lines contain S_i which is the name of the i -th month. The next line then contains T and next T lines contain A_i .

Format Output

For each question, output one line starting with "Case # X : " (without quotes) where X is the question number (starting from 1) followed by the month and date on Bibi's A_i -th day on the planet.

Constraints

- $1 \leq N, K \leq 100$
- $1 \leq Q \leq 1000$
- $1 \leq A_i \leq 1000000$
- $1 \leq |S_i| \leq 100$ ($|S_i|$ means the length of S_i)
- S_i only contains lowercase English letters a-z

Sample Input 1 (standard input)

```
12 30
january
february
march
april
may
june
july
```

```
august
september
october
november
december
10
1
2
31
69
360
361
362
420
720
1337
```

Sample Output 1 (standard output)

```
Case #1: january 1
Case #2: january 2
Case #3: february 1
Case #4: march 9
Case #5: december 30
Case #6: january 1
Case #7: january 2
Case #8: february 30
Case #9: december 30
Case #10: september 17
```

Strange Planet

Sekarang Lili sedang berada di planet yang asing dan ia ingin mempelajari sistem kalender di planet tersebut. Setiap tahun di planet tersebut terdiri dari N bulan dan setiap bulan di planet tersebut terdiri dari tepat K hari. Bibi tiba di planet tersebut pada hari pertama bulan pertama, dan sekarang ia punya T pertanyaan: Apa bulan dan tanggal pada hari ke A_i Bibi di planet tersebut? Bantulah ia untuk menjawab pertanyaan tersebut!

Format Input

Baris pertama terdiri dari bilangan N dan K . N baris selanjutnya mengandung S_i yaitu nama dari bulan ke- i . Baris selanjutnya kemudian mengandung T dan T baris selanjutnya mengandung A_i .

Format Output

Untuk setiap pertanyaan, tampilkan satu buah baris yang dimulai dengan “Case # X : ” (tanpa kutip) dimana X adalah nomor pertanyaan (dimulai dari 1) kemudian diikuti oleh bulan dan tanggal pada hari ke A_i Bibi di planet tersebut.

Constraints

- $1 \leq N, K \leq 100$
- $1 \leq Q \leq 1000$
- $1 \leq A_i \leq 1000000$
- $1 \leq |S_i| \leq 100$ ($|S_i|$ berarti panjang dari S_i)
- S_i hanya mengandung alfabet bahasa Inggris a-z

Sample Input 1 (standard input)

```
12 30
january
february
march
april
may
june
```

```
july
august
september
october
november
december
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2
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Sample Output 1 (standard output)

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Case #1: january 1
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Case #8: february 30
Case #9: december 30
Case #10: september 17
```