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## Partitions

P70756\_en

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Write a program that, given  $n$  different words  $s_1, \dots, s_n$  and a number  $p$ , prints all the ways to share the words between  $p$  subsets.

### Input

Input consists of a natural number  $n > 0$ , followed by  $s_1, \dots, s_n$ , followed by a natural number  $p > 0$ .

### Output

Print all the ways to share the words between  $p$  subsets. The elements of each set must appear in the same order than in the input. Print an empty line after each partition.

### Observation

Strictly speaking, a partition cannot have empty subsets, but we forget about that restriction in this exercise.

### Information about the checker

You can print the solutions to this exercise in any order.

### Sample input

```
2
hello bye
2
```

### Sample output

```
subset 1: {hello,bye}
subset 2: {}

subset 1: {hello}
subset 2: {bye}

subset 1: {bye}
subset 2: {hello}

subset 1: {}
subset 2: {hello,bye}
```

### Problem information

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