IEEEXtreme Türkiye Kampı: Gün 1
ALT KÜMELER

Problem

Given a set, find all subsets of the set except the empty set.

Input

Input will contain one case.

The first line of the input denotes the number of elements in the set. (N)

The second line of the input contains the set itself. The elements will be distinct integers with spaces in between.

1<=N<=20

Output

Print all subsets of the given set except empty set, with each line containing a single subset. Print elements of a subset with spaces in between.

Subset print order: (Hint for solving in 10 lines)

Let’s denote the first element of the set(in the given order) as 0^{th} element. Other elements that follows are 1^{st} 2^{nd} 3^{rd} … $N\text{-}1^{th}$. Now think each subset as a bit stream. For example, bit stream 000100 denotes subset that has 2^{nd} element but does not have others.

Now, think this bit streams as numbers in base-2. You should output the subsets which has smaller base-2 bit streams. Also, for a specific subset, first elements must be printed first. For example, 000111 like set must be printed as [0^{th} element] [1^{st} element] [2^{nd} element].

Sample Input

```
2
3 2
```

Sample Output

```
3
2
3 2
```

Time Limit

C/C++/Java: 3 secs, Python: 6 secs

Extra Challenge(Not necessary to get point)

Make the code that generates the subsets at most 10 lines. (Except reading input and stuff.)