

Problem E

One Night, A College Student, A Miracle

Time limit: 3 seconds

Memory limit: 1024 megabytes

Problem Description

Tomorrow is the second midterm exam for the sophomore Algorithms course, but the teaching assistants, normally busy preparing the Java exam questions, still have no idea what the scope of tomorrow's test will be.

As per tradition, to make next week's seating arrangements easier, the TAs would usually sort the students' Java password slips by student ID. However, today they are too busy defending their own credits to handle the organization.

Fortunately, the professor covered Selection Sort in class. Please, the benevolent you, lend a hand and use what you have learned to help the TAs organize the password list so they can truly live up to the legendary motto:

“One night, a college student, a miracle.”

Input Format

The input may contain multiple test cases. Each test case consists of two lines. The first line contains an integer N , representing the number of students in the class. The second line contains a sequence of N numbers, composed of the integers from 1 to N , with each number appearing exactly once. The program terminates when N equals 0.

Output Format

For each test case, output the step-by-step result of sorting the sequence using selection sort, as shown in the sample test cases.

Technical Specification

- $1 \leq N \leq 200$

Sample Input 1

```
3
1 2 3
6
3 6 2 5 1 4
0
```

Sample Output 1

```
1 2 3
1 2 3
1 2 3
1 6 2 5 3 4
1 2 6 5 3 4
1 2 3 5 6 4
1 2 3 4 6 5
1 2 3 4 5 6
```

1	2	3	4	5	6
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