

Heap-Sort

Description In this lab assignment your job is to implement heap-sort.

Input structure The input starts with an integer number which indicates the number of elements (integers) to be sorted, n . Then, the elements follow, one per line.

Output the elements in non-decreasing order. Each element must be followed by ;.

Examples of input and output:

Input

6
5
3
2
1
6
4

Output

1;2;3;4;5;6;

Note that the output has only one line and has no white characters.

See the lab guidelines for submission/grading, etc., which can be found in Files/Labs.