

## Merge Sort

**Description** In this lab assignment your job is to implement Merge-Sort. See the textbook for the algorithm and its pseudo-code. You must output the given elements (integers) in non-decreasing order.

**Input structure** The input starts with an integer number which indicates the number of elements,  $n$ . Then, the elements follow, one per line.

**Output structure** 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.