

Programming assignment 3

Heap sort

Input (Standard input)

The number of input keys N ($1 \leq N \leq 100,000$), and an integer k are given ($1 \leq k \leq 30$) in the first line

In the next N lines, a key is given in each line.

Output (Standard output)

In the first line, print k biggest elements in decreasing order.

In the second line, print the heap after extracting k biggest elements.

[Example]

Input	Output
10 4	16 14 10 9
16	8 7 3 4 2 1
14	
10	
8	
7	
9	
3	
2	
4	
1	

Description

1. File name must be Heapsort.cpp
2. Make a comment of your student ID, name and class in the first line of the source code.
ex) 2008601028_Honggildong_A or 2008601028_홍길동_A
3. Please keep the source code that you have submitted for some unexpected accident.