Programming assignment 4

Implement Heap sort

Input (Standard input)

In the first line, the number of input keys N ($1 \le N \le 100,000$), and an integer k are given ($1 \le k \le 30$).

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

Output (Standard output)

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

In the second line, print the heap after extracting the biggest k 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 the comment of 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 unexpected accident.