priority queue

Priority Queue is one of the most widely used data structures. In the priority queue for each data, a not necessarily unique priority is specified. The priority queue can be compared to the emergency room of a hospital, where each patient with a greater severity of the disease has a higher priority for treatment. The computer operating system also uses priority queues to manage processes. In this question, we are going to manage processes using priority queues. The input of the problem in the first line is the number of **primary** processes, the second line shows the number of processes, and the third line shows the priorities. Pay attention, **after each deletion action** , **an insertion action**We will have that the total number of insertion actions is shown in the fourth line, and from the fifth line onwards, the number of the new process is shown with its priority (the process number is shown with a space from its priority). Pay attention when the total insertion actions It is finished, all the processes should be removed from the queue. The output of the problem is the **number of processes** that are taken out of the queue with priority, and in a situation where the priority of two processes is the same, a process with a **smaller number is** deleted first. **Use Heap** to implement priority queue .

* *Sample input**

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

```
1 3 2 4 5 4
2
7 3
8 1
```

** sample output **

```
3 2 8 4 7 1 6 5
```

POST AN ANSWER TO THIS QUESTION

.The training period is over

Proudly made in Iran 1401 - 1394