Quick sort

- Time limit: 2 seconds
- Memory limit: 128 MB

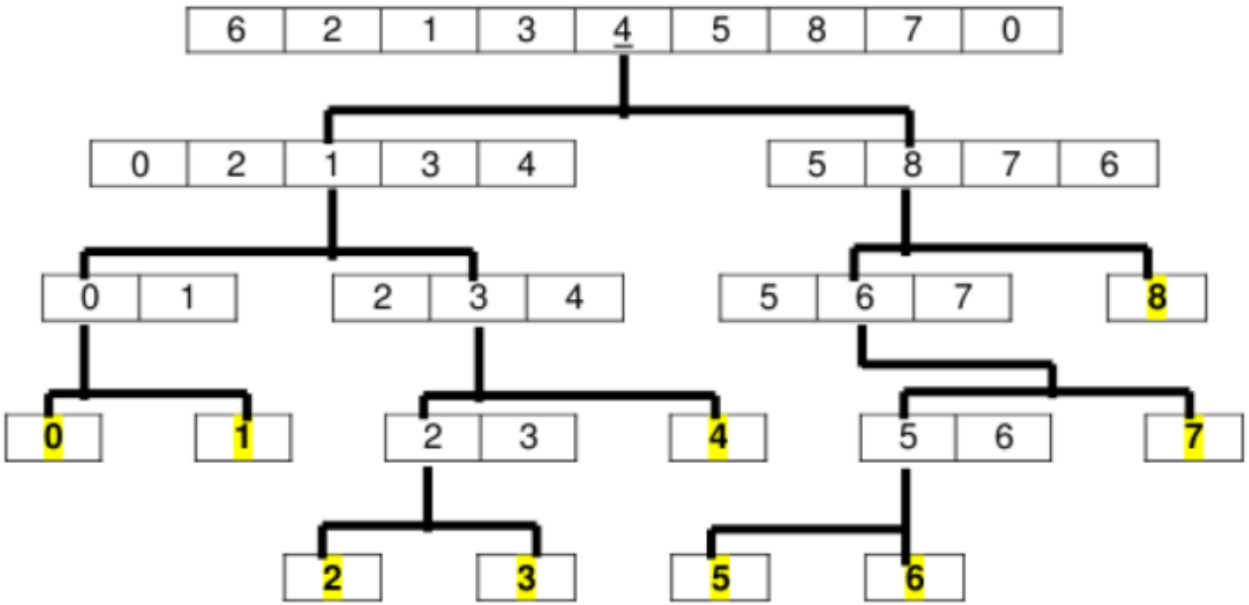
Quick sort is one of the popular and high-speed methods for sorting data. This method, like the assertion method, uses the division and solution algorithm to sort the data. In this way, it divides the data into two separate parts and sorts the whole data by sorting them. For this, one of the data (for example, the first data) is selected as the axis. The data is arranged based on the axis so that all the data smaller than the axis are on the left side and the data greater than or equal to it are on the right side. By sorting the two parts obtained, the whole data is sorted. In this case, there is no need to merge the data like the integration method, because the right part is all smaller than the left part and vice versa. For example, consider the following integers:

```
5 61 9 0 4 5 15 3 1 14 10
```

```
1 0 4 3 1 4 5 6 9 5 15 10
```

As you can see, the numbers on the left side of the number 5 are all smaller than 5 and the numbers

on the right side are all greater or equal to it. The image below shows how this algorithm works. with the difference that the axis of the algorithm is the middle element:



Write a program that receives a string from the user and then prints the sorted string.

Input

You will be given a string of numbers in a single input line. Numbers are smaller than 10000000000.

Also, the number of numbers is less than 500,000.

Output

Print numbers in ascending order on a single output line

Print numbers in ascending order on a single output line.

Example

Sample input

```
0 1 5 3 6 2 4
```

Sample output

```
0 1 2 3 4 5 6
```

POST AN ANSWER TO THIS QUESTION

.The training period is over

Proudly made in Iran 1401 - 1394