
Statistical measures

P59282_en

Sisè Concurs de Programació de la FME (2009-05-07)

Write a program to compute the most common statistical measures (minimum, maximum and average) of several integer numbers. These numbers are known increasingly. At every moment, it is also possible to delete the smallest element.

Input

Input consists of a sequence of (possibly, many) numbers, together with deleting instructions, as can be seen in the sample input. The numbers may be repeated. Deleting means removing the smallest element (one instance of it, if it is repeated). If there are no elements, deleting does nothing.

Output

After every instruction of the input, print the minimum, maximum and average of the current elements with four digits after the decimal point, or tell that there are no elements. Follow the format of the sample output.

Sample input

```
number 3
number 2
number 3
delete
number 97
delete
delete
delete
delete
delete
number -23
delete
```

Sample output

```
minimum: 3, maximum: 3, average: 3.0000
minimum: 2, maximum: 3, average: 2.5000
minimum: 2, maximum: 3, average: 2.6667
minimum: 3, maximum: 3, average: 3.0000
minimum: 3, maximum: 97, average: 34.3333
minimum: 3, maximum: 97, average: 50.0000
minimum: 97, maximum: 97, average: 97.0000
no elements
no elements
minimum: -23, maximum: -23, average: -23.0000
no elements
```

Problem information

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