# C++ Fundamentals – Retake Exam (15 May 2021)

## Top 5 Elements

Write a program to **read a sequence of integers** and find and print the **top 5** numbers that are **greater than the average** value in the sequence, sorted in descending order.

## Input

Read from the console:

* An integer number – size of the array.
* A sequence of numbers – the elements of the array.

## Output

Print the described above numbers on a single line, space separated. If **less than 5 numbers** hold the mentioned above property, print less than 5 numbers. Print “**No**” if no numbers hold the above property.

## Constraints

All input numbers are integers in range [-1 000 000 … 1 000 000]. The count of numbers is in range [1…50].

## Examples

|  |  |  |
| --- | --- | --- |
| **Input** | **Output** | **Comments** |
| 5  10 20 30 40 50 | 50 40 | Average number = 30.  Numbers greater than 30 are: {40, 50}.  The top 5 numbers among them in descending order are: {50, 40}.  Note that we have only 2 numbers, so all of them are included in the top 5. |
| 13  5 2 3 4 -10 30 40 50 20 50 60 60 51 | 60 60 51 50 50 | Average number = 28.08.  Numbers greater than 28.08 are: {30, 40, 50, 50, 60, 60, 51}.  The top 5 numbers among them in descending order are: {60, 60, 51, 50, 50}. |
| 1  1 | No | Average number = 1.  There are no numbers, greater than 1. |
| 6  -1 -2 -3 -4 -5 -6 | -1 -2 -3 | Average number = -3.5.  Numbers greater than -3.5 are: {-1, -2, -3}.  The top 5 numbers among them in descending order are: {-1, -2, -3}. |