### #Problem 1: Upper and Lower Bound

Description:

Given a sorted array A of size N and a search value S, you have to find the upper and lower bound value for S.

In the first line, you will be given N and S. In the second line, you will be given N values denoting the sorted array.

You have to print the upper and lower bound respectively with a single blank space. Keep a new line character after each output. Print the answer using 0 based indexing.

Upper Bound: The index of the smallest value in the sorted array which is greater than S. For repeating such values consider the largest or the right-most index. If the largest value in the array is smaller than S. Then the upper bound is the size of the array.

Lower Bound: The index of the largest value in the sorted array which is smaller or equal to S. For repeating such values consider the smallest or the left-most index. If S is smaller than the smallest value in the array, consider the lower bound as 0.

Limits:

1<=|A|<=100000

Test Cases:

| Input | Output |
| --- | --- |
| 5 3  1 2 3 7 8 | 3 2 |
| 5 4  1 2 3 7 8 | 3 2 |
| 8 6  1 3 5 5 5 7 9 10 | 5 2 |
| 8 12  1 3 5 5 5 7 9 10 | 8 7 |
| 8 0  1 3 5 5 5 7 9 10 | 0 0 |
| 6 3  1 2 2 4 4 7 | 4 1 |
| 6 2  1 2 2 4 4 7 | 4 1 |

* First solve for non repeating elements
* Then consider the solution for repeating elements
* Try to write code using separate functions

### #Problem 2: Finding Square Root

Description:

You will be given an integer number. You need to calculate the square root of that number up to three decimal places. So, your precision should match three places after the decimal. You can not use the built-in function sqrt here.

Test Cases:

| Input | Output |
| --- | --- |
| 4 | 2.000 |
| 10 | 3.162 |
| 15 | 3.873 |

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