

Jump search in Java → Find a block that may contain the target value

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Hard

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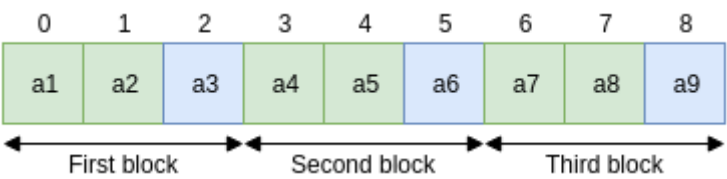
?

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Code Challenge — Write a program

Write a program that reads an ascending sorted array of integers and a single value. The program should find the first suitable block for this value according to the values of block borders.

We consider only a possibility to have the element according to its value and the values of block borders. We do not check the block actually contain the element.



Your algorithm should use principles of the **jump search**.

As a block size use the optimal value. The last block can have the smaller size.

Read the theory lesson if you do not understand the problem.

Input data format

The first line contains the length of an input array, the second one consists of array elements, the last one has the target value.

Output data format

The program must output the left and the right indexes of the found block separated by space. If no any block could contain the value, output the string **"-1"**.

Sample Input 1:

```
10
0 1 1 1 3 5 8 13 21 34
1
```

Sample Output 1:

```
0 2
```

Sample Input 2:

```
10
0 1 1 1 3 5 8 13 21 34
2
```

Sample Output 2:

```
3 5
```

Sample Input 3:

```
10
0 1 1 1 3 5 8 13 21 34
22
```

Sample Output 3:

```
9 9
```

Sample Input 4:

```
10
0 1 1 1 3 5 8 13 21 34
```

Code snippets from theory

6

Sample Output 4:

6 8

Sample Input 5:

10
0 1 1 1 3 5 8 13 21 34
36

Sample Output 5:

-1

Code Editor IDE



- ✓ IDE is responding IntelliJ IDEA 2019.3
- ✓ Plugin is responding 3.2-2019.3-3686

Code snippets from theory Skip problem

Time limit: 3 seconds Memory limit: 256 MB

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Share something, Sergey Kubatko

Sort by: Last posted ▼

- MB

Maciej Bystrzyński

about 2 months ago

Report

Get test # 7 and u will find out what u have to do.

♡ 0

Reply
- MW

Mateusz Wojdyła

2 months ago

Report

Yeah, I think there are bugs in the tests

♡ 0

Reply
- C

Camel Case

3 months ago

Report

...and yes, I changed the output to the beginning and ending index of the block where the value is thought to be.

♡ 0

Reply
- C

Camel Case

3 months ago

Report

Lol I literally used the algo from the theory section and it's saying it's all wrong: code style errors, wrong output, etc. For whatever reason, it's saying their own algo gives the wrong result for Test 4.

♡ 0

Reply
- G

Gurhan

3 months ago

Report

The problem with the given code is that people will assume it as given and focus on implementing method but the checking first element is redundant and it prevents passing of test cases.

♡ 2

Reply

HT

Hoang Trung Nguyen 5 months ago Report

Can anyone explain the Sample 4?

 0 [Reply](#)

U1

User 149604 5 months ago Report

Okay my bad if someone else is confusing about this it means to find the first block not just the range.

 0 [Reply](#)

U1

User 149604 5 months ago Report

Yes this task is pretty confusing or just test are bad.

 0 [Reply](#)

G

Gurhan 5 months ago Report

Failed test #5. Wrong answer, downloaded test case, looks up 0 which is in first block so shouldn't it be 0 2?

 0 [Reply](#)

G

Gurhan 6 months ago Report

I couldn't understand the expected output, for this sample;

10

0 1 1 1 3 5 8 13 21 34

1

shouldn't it be 0 3 since sqrt(10) is 3?

 0 [Reply](#)

A

Ace 6 months ago

Fixed

The sample outputs are wrong.

 0 [Show all](#)

SR

Shubham Rajvanshi 6 months ago Report

sample output 4 is wrong

it should be 6 9

 0 [Reply](#)

EG

Elmira Grokholskaya 11 months ago Report

Could you write the test #5 source data? I can't understand what I should to get as a result? Four sample outputs in my program are the same as in examples. And also I get -1 if no any block could contain the value.

 0 [Reply](#)