

username :juiradukunda17

- Take a screenshot of this page making sure the following are visible on your screenshot image:

The screenshot displays the HackerRank interface for the 'Closest Numbers' problem. At the top, the navigation bar includes links for PRACTICE, CERTIFICATION, COMPETE, JOBS, and LEADERBOARD, along with a search bar and the user's profile (juiradukunda17). The problem title 'Closest Numbers' is prominently displayed, accompanied by a star icon and a progress indicator showing '15 more points to get your next star!' and 'Rank: 1203291 | Points: 85/100'.

A success message overlay states: 'Your Closest Numbers submission got 35.00 points. You are now 15 points away from the 2nd star for your problem solving badge.' It includes links to 'Share', 'Tweet', 'Try the next challenge', and 'Try a Random Challenge'.

The problem description explains that sorting is useful for finding pairs of elements with the smallest absolute difference. An example array is provided: `arr = [5, 2, 3, 4, 1]`.

The code editor shows a Python 3 solution for the `closestNumbers` function. The code sorts the array and iterates through it to find the minimum difference between adjacent elements, returning the corresponding elements in a list.

```
1  #!/bin/python3
2
3  import math
4  import os
5  import random
6  import re
7  import sys
8
9  # Complete the closestNumbers function below.
10
11
12 def closestNumbers(arr):
13     arr.sort()
14     result = []
15     min_N = sys.maxsize
16     for i in range(len(arr)-1):
17         min_N = min(arr[i+1]-arr[i], min_N)
18
19     for i in range(len(arr)-1):
20         if arr[i+1]-arr[i] == min_N:
21             result.append(arr[i])
22             result.append(arr[i+1])
```

At the bottom, there are buttons for 'Run Code' and 'Submit Code', along with options to 'Upload Code as File' or 'Test against custom input'.

### Congratulations

You solved this challenge. Would you like to challenge your friends?

[Next Challenge](#)

### Earn a certificate in Problem Solving

Kudos on your progress! Take the HackerRank Skills Certification test and enrich your profile

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✓ Test case 0

✓ Test case 1

✓ Test case 2

✓ Test case 3

✓ Test case 4

✓ Test case 5

Compiler Message

Success

Input (stdin) [Download](#)

1	10
2	-20 -3916237 -357920 -3620601 7374819 -7330761 30 6246457 -6461594 266854

Expected Output [Download](#)

1	-20 30
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## Codes

```
#!/bin/python3

import math
import os
import random
import re
import sys

# Complete the closestNumbers function below.

def closestNumbers(arr):
    arr.sort()
    result = []
    min_N = sys.maxsize
    for i in range(len(arr)-1):
        min_N = min(arr[i+1]-arr[i], min_N)

    for i in range(len(arr)-1):
```

```
        if arr[i+1]-arr[i] == min_N:
            result.append(arr[i])
            result.append(arr[i+1])
    print(result)
    return result

if __name__ == '__main__':
    fptr = open(os.environ['OUTPUT_PATH'], 'w')

    n = int(input())

    arr = list(map(int, input().rstrip().split()))

    result = closestNumbers(arr)

    fptr.write(' '.join(map(str, result)))
    fptr.write('\n')

    fptr.close()
```