

# HackerRank

**Username:** Samuel Anumudu

**Email:** s.anumudu@alustudent.com

## Screenshots:

The screenshot shows the HackerRank interface for the 'Closest Numbers' problem. At the top, the navigation bar includes 'PRACTICE', 'CERTIFICATION', 'COMPETE', 'JOBS', and 'LEADERBOARD'. The user's profile 's\_anumudu' is visible in the top right. Below the navigation bar, the breadcrumb trail reads 'Practice > Algorithms > Sorting > Closest Numbers > Submissions'. The problem title 'Closest Numbers' is displayed with a star icon. A progress bar indicates '65 more points to get your next star!' with a rank of 1698366 and 35/100 points. A notification box states: 'Your Closest Numbers submission got 35.00 points. You are now 65 points away from the 2nd star for your problem solving badge. Try the next challenge | Try a Random Challenge'. Below the notification, tabs for 'Problem', 'Submissions', 'Leaderboard', 'Discussions', 'Editorial', and 'Topics' are shown. The 'Submissions' tab is active, displaying a table with columns: RESULT, SCORE, LANGUAGE, TIME, and a 'View Results' link. The table shows one submission: 'Accepted' with a score of 35.0, using Python 3, submitted 16 minutes ago. A 'NEED HELP?' section on the right offers links to 'View discussions', 'View editorial', and 'View top submissions'.

RESULT	SCORE	LANGUAGE	TIME	
Accepted	35.0	Python 3	16 minutes ago	<a href="#">View Results</a>

The screenshot shows the HackerRank code editor for the 'Closest Numbers' problem. The editor is set to Python 3. The code is as follows:

```
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 def closestNumbers(arr):
11     arr.sort()
12     difference = 4573239128
13     empty_array = [] #
14
15     for i in range(1, len(arr)):
16         absolute_value = abs(arr[i-1] - arr[i])
17
18         if absolute_value < difference:
19             difference = absolute_value
20             empty_array = [arr[i-1], arr[i]]
21
22         elif absolute_value == difference:
23             empty_array.extend([arr[i-1], arr[i]])
24     return empty_array
```

The status bar at the bottom right indicates 'Line: 40 Col: 1'.

Change Theme

Python 3



```
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21
22         elif absolute_value == difference:
23             empty_array.extend([arr[i-1], arr[i]])
24     return empty_array
25
26
27 if __name__ == '__main__':
28     fptr = open(os.environ['OUTPUT_PATH'], 'w')
29
30     n = int(input())
31
32     arr = list(map(int, input().rstrip().split()))
33
34     result = closestNumbers(arr)
```

[Upload Code as File](#) ☐ Test against custom input 

Run Code

Submit Code

## Congratulations!

You have passed the sample test cases. Click the submit button to run your code against all the test cases.

✔ Sample Test case 0

✔ Sample Test case 1

Input (stdin) [Download](#)

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

Your Output (stdout)

1	-20 30
---	--------

Expected Output [Download](#)

1	-20 30
---	--------

### Code Snippet:

```
#!/bin/python3

import math
import os
import random
import re
import sys

# Complete the closestNumbers function below.
def closestNumbers(arr):
    arr.sort()
    difference = 4573239128
    empty_array = [] #
```

```

for i in range(1, len(arr)):
    absolute_value = abs(arr[i-1] - arr[i])

    if absolute_value < difference:
        difference = absolute_value
        empt_array = [arr[i-1], arr[i]]

    elif absolute_value == difference:
        empt_array.extend([arr[i-1], arr[i]])
return empt_array

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()

```