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- The title of the problem (Closest Numbers)


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Closest Numbers ☆

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Sorting is useful as the first step in many different tasks. The most common task is to make finding things easier, but there are other uses as well. In this case, it will make it easier to determine which pair or pairs of elements have the smallest absolute difference between them.

Author

Difficulty

Max Score

Submitted By

HackerRank

Easy

35

58777

- The summary of your results, showing **whether or not it has been accepted or whether it is a wrong answer, the score you got** for your submission, **the programming language used**, and the **time submitted**.

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Closest Numbers ☆

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RESULT	SCORE	LANGUAGE	TIME	
✔ Accepted	35.0	Python 3	4 minutes ago	View Results
✔ Accepted	35.0	Python 3	an hour ago	View Results
✔ Accepted	35.0	Python 3	5 hours ago	View Results

✔ 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

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1	-20 30
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Code used(with python language)

```
#!/bin/python3

import math
import os
import random
import re
import sys

# Complete the closestNumbers function below.
def closestNumbers(arr):
    arr.sort()
    min_diff = 3893993939 #any huge number for comparison
    pair = []

    #our program's logic

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

        #update the min_diff
```

```

        if diff < min_diff:
            min_diff = diff
            pair =[arr[i-1], arr[i]]
            #if the min_diff already exists

        elif diff == min_diff:
            pair.extend([arr[i-1], arr[i]])
    return pair

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()

```