

Test 1

Score 0/280

Test

Maximum Profit on App

0/80

Find smallest substring

0/120

Equal Sum Pair

0/80

ProblemResult

Equal Sum Pair

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Given an integer array of size N, determine whether 4 elements exist such that  $a+b = c+d$ . Return true or false accordingly.

Perform this in  $O(n^2)$ .

Note : (a+b) and (c+d) is unique. For eg, array(10, 10, 8, 9) Pair(10(at index 0),8) and Pair(10(at index 1),8) are different pairs but Pair(10(index 0),10(index 1)) and Pair(10(index 1),10(index 0)) are same.

Input Format :

Integer N (size of input array)

Output Format :

true or false

Constraints :

$1 \leq N \leq 10^3$

Sample Input 1:

6  
9 8 17 20 30 40

Sample Output 1:

false

Sample Input 2:

6  
9 8 7 10 20 30

Sample Output 2:

true

Sample Output 2 Explanation :

$9+8 = 10+7$

Hence 4 elements exist which satisfy this relation.

Sample Input 3:

6  
100 250 3 3 600

Sample Output 3:

true

Sample Output 3 Explanation :

$100+3$  (3 at index 1) =  $100+3$  (3 at index 2)

```
1 #include <cmath>
2 #include <iostream>
3 #include<bits/stdc++.h>
4 using namespace std;
5
6 bool findPairs(int arr[], int n) {
7     /* Don't write main().
8      * Don't read input, it is passed as function argument.
9      * Return output and don't print it.
10     * Taking input and printing output is handled automatically.
11     */
12
13
14 }
15
```