

## TEST -1 (SUMMER TRAINING)

Solve any four

- 1) Write a program to display the array element.
- 2) Write a program to find the max element from the list
- 3) Count of 3 Multiples

Write a program to find the count of 3 multiples in a given input integer array.

Include a function named `divisibleBy3` that accepts 2 arguments and returns an int.

The first argument is the input array and the second argument is an int that corresponds to the size of

the array. The function returns an int that corresponds to the count of 3 multiples.

If the size of the array is negative or if any element in the array is negative, print "Invalid Input" and terminate the program.

Input and Output Format:

Input consists of  $n+1$  integers. The first integer corresponds to  $n$ , the number of elements in the array. The next ' $n$ ' integers correspond to the elements in the array.

Output consists of an integer that corresponds to the count of 3 multiples

Assume that the maximum number of elements in the array is 20.

Sample Input 1:

8  
1  
6  
3  
5  
61  
80

102

9

Sample Output 1:

4

Sample Input 2:

-5

Sample Output 2:

Invalid Input

Sample Input 3:

5

23

2

-200

Sample Output 3:

Invalid Input

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4)<https://leetcode.com/problems/two-sum/description/>

5)<https://leetcode.com/problems/valid-parentheses/>

## Q1. Code&Output

main.cpp



Share

Run

Output

```
1 #include <iostream>
2 using namespace std;
3
4 // Function to print the array elements
5 void printArray(int arr[], int size) {
6     for (int i = 0; i < size; i++) {
7         cout << arr[i] << " ";
8     }
9     cout << endl;
10 }
11
12 int main() {
13     int arr[] = {44, 5, 67, 12, 89, 45};
14     int n = sizeof(arr) / sizeof(arr[0]);
15
16     cout << "Array elements: ";
17     printArray(arr, n);
18
19     return 0;
20 }
21
```

/tmp/v1CLl0WcSS.o

Array elements: 44 5 67 12 89 45

=== Code Execution Successful ===

## Q2. Code&Output

main.cpp



Share

Run

Output

```
1  #include <iostream>
2  using namespace std;
3
4  int findMax(int arr[], int size) {
5      int maxElement = arr[0];
6      for (int i = 1; i < size; i++) {
7          if (arr[i] > maxElement) {
8              maxElement = arr[i];
9          }
10     }
11     return maxElement;
12 }
13
14 int main() {
15     int arr[] = {44, 5, 67, 12, 89, 45};
16     int n = sizeof(arr) / sizeof(arr[0]);
17
18     int maxElement = findMax(arr, n);
19
20     cout << "The maximum element in the array is: " << maxElement << endl;
21
22     return 0;
23 }
24
```

/tmp/FE6D0pzHPc.o  
The maximum element in the array is: 89

=== Code Execution Successful ===

## Q5. Code&Output

</> Code

C++ Auto

1

class Solution {

2

public:

3

bool isValid(string s) {

4

stack<char> st;

5

for (char c : s) {

6

if (c == '(' || c == '{' || c == '[') {

7

st.push(c);

8

} else {

9

if (st.empty()) return false;

10

if (c == ')' && st.top() == '(') st.pop();

Saved

Ln 4, Col 10

☒ Testcase

Test Result

Accepted Runtime: 0 ms

• Case 1

• Case 2

• Case 3

Input

s =  
"()"

Output

true