**Program to find sum of elements in a given array**

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## ****Algorithm to find the sum of elements in a given array****

* Input the number of elements of the array.
* Input the array elements.
* Sum = addition of all the array elements.
* Display sum.

**import java.util.Scanner;**

**public class Main**

**{**

**public static void main(String[] args)**

**{**

**int n, sum = 0;**

**Scanner s = new Scanner(System.in);**

**System.out.print("Enter the number of elements:");**

**n = s.nextInt();**

**int a[] = new int[n];**

**System.out.println("Enter the array elements:");**

**for(int i = 0; i < n; i++)**

**{**

**a[i] = s.nextInt();**

**sum = sum + a[i];**

**}**

**System.out.println("The sum is: "+sum);**

**}**

**}**

* Difficulty Level : [Easy](https://www.geeksforgeeks.org/easy/)
* Last Updated : 18 Aug, 2022

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Given an array of integers, find sum of its elements.  
**Examples :**

**Input :** arr[] = {1, 2, 3}

**Output :** 6

1 + 2 + 3 = 6

**Input :** arr[] = {15, 12, 13, 10}

**Output :** 50

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| --- |
| /\* Java Program to find sum of elements in a given array  \*/  class Test  {       static int arr[] = {12,3,4,15};         // method for sum of elements in an array       static int sum()       {           int sum = 0; // initialize sum           int i;             // Iterate through all elements and add them to sum           for (i = 0; i < arr.length; i++)              sum +=  arr[i];             return sum;       }         // Driver method       public static void main(String[] args)       {           System.out.println("Sum of given array is " + sum());          }   } |

**Output**

Sum of given array is 34

**Time Complexity:** O(n)

**Auxiliary Space:** O(1)

**Another Method:** Using STL  
Calling inbuilt function for sum of elements of an array in STL.  
*accumulate(first, last, sum);*  
*first, last : first and last elements of range*  
*whose elements are to be added*  
*sum :  initial value of the sum*