1D Arrays in C ⭐

25 **more points** to get your next star!

Rank: **644080** | Points: **25/50**

Problem   **Submissions**   **Leaderboard**   **Editorial** 🔒

An array is a container object that holds a fixed number of values of a single type. To create an array in C, we can do `int arr[n];`. Here, arr, is a variable array which holds up to **10** integers. The above array is a static array that has memory allocated at compile time. A dynamic array can be created in C, using the malloc function and the memory is allocated on the heap at runtime. To create an integer array, arr of size n, `int *arr = (int*)malloc(n * sizeof(int))`, where arr points to the base address of the array. When you have finished with the array, use `free(arr)` to deallocate the memory.

In this challenge, create an array of size n dynamically, and read the values from stdin. Iterate the array calculating the sum of all elements. Print the sum and free the memory where the array is stored.

While it is true that you can sum the elements as they are read, without first storing them to an array, but you will not get the experience working with an array. Efficiency will be required later.

Input Format

The first line contains an integer, n.
The next line contains n space-separated integers.

Constraints

$1 \le n \le 1000$
$1 \le a[i] \le 1000$

Output Format

Print the sum of the integers in the array.

Sample Input 0

```
6
16 13 7 2 1 12
```

Sample Output 0

```
51
```

Sample Input 1

```
7
1 13 15 20 12 13 2
```

Sample Output 1

```
76
```

Change Theme   Language: C

```
1  #include <stdio.h>
2  #include <string.h>
3  #include <math.h>
4  #include <stdlib.h>
```

```
 5
 6   int main() {
 7
 8        /* Enter your code here. Read input from STDIN. Print output to STDOUT */
 9        return 0;
10   }
```

Line: 10 Col: 2

⬆ 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**

Input (stdin)   Download

⊘ Sample Test case 1
                    1   **6**

                    2   **16 13 7 2 1 12**

Your Output (stdout)

                    1   **51**

Expected Output   Download

                    1   **51**

Blog | Scoring | Environment | FAQ | About Us | Support | Careers | Terms Of Service | Privacy Policy