



## NIRMAL S T1249M020

@T1249m020

### Personal Information



T1249m020@kanchiuni.ac.in

Add your mobile number

India

### My Resume

+ Add Resume

Add your resume here

### EEO settings



### My Badges

You have not unlocked any badges yet. [Get Badges](#)

### My Certifications

You have not earned any certificates yet. [Get Certified](#)

### Work Experience

+ Add Work Experience

Add your work experience. Don't forget to add those internships as well.

### Education

+ Add Education

We believe in skills over pedigree; but go ahead add your education for the recruiters who don't.

### Links

+ Add Links

Add all the relevant links that help in knowing you as a hacker

### My Skills

+ Add Skills

Add all the relevant skills that speak on your behalf

HackerRank | Prepare Data Structures Arrays Left Rotation

Pro Returns  
• *int[n]*: the rotated array

Input Format  
The first line contains two space-separated integers that denote *n*, the number of integers, and *d*, the number of left rotations to perform.  
The second line contains *n* space-separated integers that describe *arr[]*.

Constraints  
•  $1 \leq n \leq 10^5$   
•  $1 \leq d \leq n$   
•  $1 \leq a[i] \leq 10^6$

Sample Input  
STDIN Function  
-----  
5 4      *n* = 5 *d* = 4  
1 2 3 4 5 arr = [1, 2, 3, 4, 5]

Sample Output  
5 1 2 3 4

Explanation  
To perform *d* = 4 left rotations, the array undergoes the following sequence of changes:  
[1, 2, 3, 4, 5] → [2, 3, 4, 5, 1] → [3, 4, 5, 1, 2] → [4, 5, 1, 2, 3] → [5, 1, 2, 3, 4]

26 Line: 26 Col: 1

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 [Download](#)  
Input (stdin)  
1 5 4  
2 1 2 3 4 5  
Your Output (stdout)  
1 5 1 2 3 4  
Expected Output  
1 5 1 2 3 4

HackerRank | Prepare > Data Structures > Arrays > 2D Array - DS

Sample Input

```
1 1 1 0 0 0  
0 1 0 0 0 0  
1 1 1 0 0 0  
0 0 2 4 4 0  
0 0 0 2 0 0  
0 0 1 2 4 0
```

34

Line: 34 Col: 1

Upload Code as File  Test against custom input

Run Code Submit Code

Sample Output

```
19
```

Explanation

`arr` contains the following hourglasses:

```
1 1 1 1 1 0 1 0 0 0 0 0 0  
1 1 1 0 0 0 0 0 0 0 0 0  
1 1 1 1 1 0 1 0 0 0 0 0 0  
0 1 0 1 0 0 0 0 0 0 0 0 0  
0 1 0 1 0 0 0 0 0 0 0 0 0  
0 0 2 4 4 2 4 4 4 4 0  
1 1 1 1 1 0 1 0 0 0 0 0 0  
1 1 1 0 0 0 0 0 0 0 0 0  
0 0 0 0 0 2 0 2 0 0 0 0  
0 0 0 0 0 2 0 2 0 0 0 0  
0 0 0 0 0 2 4 4 4 4 0  
0 0 1 2 4 0 2 4 0 2 4 0
```

The hourglass with the maximum sum (19) is:

```
2 4 4  
2  
1 2 4
```

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 1 1 0 0 0  
0 1 0 0 0 0

Sample Test case 2

1 1 1 0 0 0  
0 0 2 4 4 0  
0 0 0 2 0 0  
0 0 1 2 4 0

Your Output (stdout)

1 19

Expected Output

1 19

Download

For example, if the array  $ar = [1, 2, 3]$ ,  $1 + 2 + 3 = 6$ , so return 6.

#### Function Description

Line: 20 Col: 1

Complete the *simpleArraySum* function with the following parameter(s):

- $ar[n]$ : an array of integers

#### Returns

- *int*: the sum of the array elements

#### Input Format

The first line contains an integer,  $n$ , denoting the size of the array.

The second line contains  $n$  space-separated integers representing the array's elements.

#### Constraints

$0 < n, ar[i] \leq 1000$

#### Sample Input

STDIN	Function
-----	-----
6	ar[] size n = 6
1 2 3 4 10 11	ar = [1, 2, 3, 4, 10, 11]

#### Sample Output

31

#### Explanation

Print the sum of the array's elements:  $1 + 2 + 3 + 4 + 10 + 11 = 31$ .

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

```
1 6  
2 1 2 3 4 10 11
```

Your Output (stdout)

```
1 31
```

Download

Expected Output

```
1 31
```

STDIN      Function  
-----  
3            arr[][] sizes n = 3, m = 3  
11 2 4     arr = [[11, 2, 4], [4, 5, 6], [10, 8, -12]]  
4 5 6  
10 8 -12

```
22            secondary += arr[i][j];  
23  
24        }  
25     }  
26  
27     cout << abs(primary - secondary) << endl;
```

Line: 31 Col: 1

## Sample Output

15

 Upload Code as File Test against custom input Run Code Submit Code

## Explanation

The primary diagonal is:

```
11  
5  
-12
```

Sum across the primary diagonal:  $11 + 5 - 12 = 4$ .

The secondary diagonal is:

```
4  
5  
10
```

Sum across the secondary diagonal:  $4 + 5 + 10 = 19$

Difference:  $|4 - 19| = 15$

**Note:**  $|x|$  is the absolute value of  $x$ .

## 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)

```
1 3  
2 11 2 4  
3 4 5 6  
4 10 8 -12
```

 Download

Your Output (stdout)

```
1 15
```

 Download

Expected Output

## Sample Output 0

2

 Upload Code as File Test against custom input Run Code Submit Code

## Explanation 0

The distance between points  $(1, 2)$  and  $(2, 1)$  is  $\rho(1, 2) + \rho(2, 1) = 2$ .

## Sample Input 1

73  
12  
23  
34  
45  
56  
67  
36  
45  
55

## Sample Output 1

3

## Explanation 1

The best points are  $(3, 6)$  and  $(5, 5)$ , which gives us a distance of  $\rho(3, 5) + \rho(6, 5) = 2 + 1 = 3$ .

## 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 2 2

2 1 2

3 1 2

4 2 1

Your Output (stdout)

1 2

Expected Output

1 2

[Download](#)

**Return**

- `long`: the sum of the array elements

Line: 20 Col: 1

**Input Format**

The first line of the input consists of an integer  $n$ .

The next line contains  $n$  space-separated integers contained in the array.

**Output Format**

Return the integer sum of the elements in the array.

**Constraints** $1 \leq n \leq 10$  $0 \leq ar[i] \leq 10^{10}$ **Sample Input**

STDIN	Function
-----	-----
5	arr[] size n = 5
1000000001 1000000002 1000000003 1000000004 1000000005	arr[.

**Output**

```
5000000015
```

**Note:**

The range of the 32-bit integer is

$(-2^{31})$  to  $(2^{31} - 1)$  or  $[-2147483648, 2147483647]$ .

When we add several integer values, the resulting sum might exceed the above range. You might need to use long int C/C++/Java to store such sums.

 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](#)

```
1 5
2 1000000001 1000000002 1000000003 1000000004 1000000005
```

Your Output (stdout)

```
1 5000000015
```

[Download](#)

Expected Output

```
1 5000000015
```

**HackerRank** | Prepare Data Structures > Arrays Arrays - DS

Exit Full Screen View

An array is a data structure that stores elements of the same type in a contiguous block of memory. In an array,  $A$ , of size  $N$ , each memory location has some unique index,  $i$  (where  $0 \leq i < N$ ), that can be referenced as  $A[i]$  or  $A_i$ .

Your task is to reverse an array of integers.

**Note:** If you've already solved our C++ domain's Arrays Introduction challenge, you may want to skip this.

**Example**

$A = [1, 2, 3]$

Return  $[3, 2, 1]$ .

**Function Description**

Complete the function `reverseArray` with the following parameter(s):

- `int A[n]`: the array to reverse

**Returns**

- `int[n]`: the reversed array

**Input Format**

The first line contains an integer,  $N$ , the number of integers in  $A$ .  
The second line contains  $N$  space-separated integers that make up  $A$ .

**Constraints**

- $1 \leq N \leq 10^3$
- $1 \leq A[i] \leq 10^4$ , where  $A[i]$  is the  $i^{th}$  integer in  $A$

**Sample Input 1**

Copy Download

Line: 25 Col: 1

Upload Code as File  Test against custom input

**Run Code** **Submit Code**

You have earned 10.00 points!  
You are now 20 points away from the 1st star for your problem solving badge. 33% 10/30

**Congratulations**  
You solved this challenge. Would you like to challenge your friends? [f](#) [t](#) [in](#)

**Test case 0** Compiler Message  
**Test case 1** Success  
**Test case 2**   
**Test case 3**

**Hidden Test Case**  
Unlock this testcase for 5 hacks.

the number of queries.

Each of the next  $q$  lines contains three space-separated integers  $a$ ,  $b$  and  $k$ , the left index, right index and number to add.

#### Constraints

- $3 \leq n \leq 10^7$
- $1 \leq m \leq 2 * 10^5$
- $1 \leq a \leq b \leq n$
- $0 \leq k \leq 10^9$

#### Sample Input

STDIN	Function
-----	-----
5 3	arr[] size n = 5, queries[] size q = 3
1 2 100	queries = [[1, 2, 100], [2, 5, 100], [3, 4, 100]]
2 5 100	
3 4 100	

#### Sample Output

```
200
```

#### Explanation

After the first update the list is 100 100 0 0 0.

After the second update list is 100 200 100 100 100.

After the third update list is 100 200 200 200 100.

The maximum value is 200.

36

Line: 35 Col: 1

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](#)

1 5 3

2 1 2 100

3 2 5 100

4 3 4 100

#### Sample Test case 1

#### Sample Test case 2

Your Output (stdout)

1 200

Expected Output

1 200

[Download](#)

Sample Input 3

[Copy](#) [Download](#)

30

Line: 30 Col: 1

```
13
abcde
sdaklfj
asdjf
na
basdn
sdaklfj
asdjf
na
asdjf
na
basdn
sdaklfj
asdjf
5
abcde
sdaklfj
asdjf
na
basdn
```

abcde	sdaklfj	asdjf	na	basdn
-------	---------	-------	----	-------

Array: queries

[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](#)

```
1 4
2 aba
3 baba
4 aba
5 zxzb
6 3
7 aba
8 zxzb
9 ab
```

### Sample Test case 1

### Sample Test case 2

Your Output (stdout)

```
1 2
```

Sample Output 3

```
1
3
4
3
2
```

Print the ratios of positive, negative and zero values in the array. Each value should be printed on a separate line with 6 digits after the decimal. The function should not return a value.

#### Input Format

The first line contains an integer,  $n$ , the size of the array.

The second line contains  $n$  space-separated integers that describe  $arr[n]$ .

#### Constraints

$0 < n \leq 100$

$-100 \leq arr[i] \leq 100$

#### Sample Input

STDIN	Function
-----	-----
6	arr[] size n = 6
-4 3 -9 0 4 1	arr = [-4, 3, -9, 0, 4, 1]

#### Sample Output

0.500000  
0.333333  
0.166667

#### Explanation

There are 3 positive numbers, 2 negative numbers, and 1 zero in the array.

The proportions of occurrence are positive:  $\frac{3}{6} = 0.500000$ , negative:  $\frac{2}{6} = 0.333333$  and zeros:  $\frac{1}{6} = 0.166667$ .

28

Line: 28 Col: 1

 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](#)

1 6  
2 -4 3 -9 0 4 1

Your Output (stdout)

1 0.500000  
2 0.333333  
3 0.166667

Expected Output

1 0.500000  
2 0.333333  
3 0.166667

[Download](#)

### Explanation 0

In this example:

- $a = (a[0], a[1], a[2]) = (5, 6, 7)$
- $b = (b[0], b[1], b[2]) = (3, 6, 10)$

Now, let's compare each individual score:

- $a[0] > b[0]$ , so Alice receives 1 point.
- $a[1] = b[1]$ , so nobody receives a point.
- $a[2] < b[2]$ , so Bob receives 1 point.

Alice's comparison score is 1, and Bob's comparison score is 1. Thus, we return the array  $[1, 1]$ .

### Sample Input 1

```
17 28 30  
99 16 8
```

### Sample Output 1

```
21
```

### Explanation 1

Comparing the  $0^{th}$  elements,  $17 < 99$  so Bob receives a point.

Comparing the  $1^{st}$  and  $2^{nd}$  elements,  $28 > 16$  and  $30 > 8$  so Alice receives two points.

The return array is  $[2, 1]$ .

32

Line: 32 Col: 1

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

```
1 5 6 7  
2 3 6 10
```

### Sample Test case 1

Your Output (stdout)

```
1 1
```

Expected Output

```
1 1
```

Download

Initial Values:

 $n = 2$  $lastAnswer = 0$  $arr[0] = []$  $arr[1] = []$ Query 0: Append 5 to  $arr[(0 \oplus 0) \% 2] = arr[0]$ . $lastAnswer = 0$  $arr[0] = [5]$  $arr[1] = []$ Query 1: Append 7 to  $arr[(1 \oplus 0) \% 2] = arr[1]$ . $arr[0] = [5]$  $arr[1] = [7]$ Query 2: Append 3 to  $arr[(0 \oplus 0) \% 2] = arr[0]$ . $lastAnswer = 0$  $arr[0] = [5, 3]$  $arr[1] = [7]$ Query 3: Assign the value at index 0 of  $arr[(1 \oplus 0) \% 2] = arr[1]$  to $lastAnswer$ . Store  $lastAnswer$  in your answer array.  $lastAnswer = 7$  $arr[0] = [5, 3]$  $arr[1] = [7]$ Query 4: Assign the value at index 1 of  $arr[(1 \oplus 7) \% 2] = arr[0]$  to $lastAnswer$ . Store  $lastAnswer$  in your answer array.  $lastAnswer = 3$  $arr[0] = [5, 3]$  $arr[1] = [7]$ 

Return your answer array [7, 3]. The code stub prints its elements on separate lines.

31

Line: 31 Col: 1

 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)

1 2 5

2 1 0 5

3 1 1 7

4 1 0 3

5 2 1 0

6 2 1 1

 Download

Your Output (stdout)

1 7

2 3

 Download

Expected Output