Aragorn is Gone

locked

Problem Submissions Discussions

Time Limit: $C/C++$ $(1s)$, $Java$ $(2s)$
Memory Limit: $512MB$

In the realm of Middle-earth, a formidable and malevolent force emerged. Sauron, the Lord of the Rings, aspired to subjugate all of Middle-earth and mold it according to his will. To aid in his quest for dominion, he forged the One Ring, a weapon of immense power. Before Sauron's might, Aragorn, the king of Gondor, was defeated and forced to abandon his kingdom.

Currently Sauron has a special army called Orcforces consisting of N Orcs(a race of evil, humanoid creatures). The energy level of i^{th} Orc is denoted by A_i ($1 \leq i \leq N$). Now Sauron needs to form a team by choosing one or multple Orcs from this army such that the overall energy of the team is divisible by the size of the team.

To defeat Sauron, Aragorn the king needs to know the total number of ways Sauron can form a team modulo $10^9 + 7$.

Can you help Aragorn to find this number and save Middle-earth?

Input Format

Input starts with an integer T denoting test cases.

For each test case, input starts with a integer N— the total number of Orc in the army.

Next line contains N integers A_i- energy level of i^{th} Orc.

Constraints

$1 \leq T \leq 100, 1 \leq N \leq 100, -10^9 \leq A_i \leq 10^9$

It is guaranteed that the overall summation of N is ≤ 100

Output Format

For each case, print the case number followed by the result in a single line

$Note.$ Follow the samples for the exact output format.

Sample Input 0

```
2
5
1 2 3 4 5
7
1 2 2 1 0 1 1
```

Sample Output 0

```
Case 1: 15
Case 2: 51
```

Submissions: 227
Max Score: 1

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C

```c
#include <stdio.h>
#include <string.h>
#include <math.h>
#include <stdlib.h>

int main() {

    /* Enter your code here. Read input from STDIN. Print output to STDOUT */
    return 0;
}
```

Line: 1 Col: 1

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