

Description

My Submissions

Hints/Editorial

AC Submissions

My Notes (0)

The Magical Candy Bag AZ101

? Ask Doubt

Time-Limit: 1 sec

Score: 100.00/100

Difficulty :

Memory: 256 MB

Accepted Submissions: 100

Description

You have N magical candy bag. The i-th bag contains A_i candies. In each minute you can eat all the candies, A_i of one bag, after that, the candies become $[A_i / 2]$ where $[x]$ is the greatest integer less than x. You have K minutes, find the maximum number of candies you can eat.

Input Format

The first line of the input contains one integer T - the number of test cases. Then T test cases follow.

The first line of each test case contains two space-separated integers N, K - the number of bags and the number of minutes.

The second line of each test case contains N space-separated integers.

Output Format

For each test case, print the maximum number of candies you can eat.

Constraints

$1 \leq T \leq 10^5$

$1 \leq N \leq 10^5$

$0 \leq K \leq 10^5$

$1 \leq A_i \leq 10^9$

It is guaranteed that the sum of K over all test cases does not exceed 10^6 .

Sample Input 1

Copy

```
3
4 2
4 3 5 1
1 2
4
6 3
3 2 2 5 1 2
```

Sample Output 1

Copy

C++14[GCC] ▾

Submit

1