Round A 2020 - Kick Start 2020

Allocation

PROBLEM ANALYSIS

Problem

There are **N** houses for sale. The i-th house costs $\mathbf{A_i}$ dollars to buy. You have a budget of **B** dollars to spend.

What is the maximum number of houses you can buy?

Input

The first line of the input gives the number of test cases, **T**. **T** test cases follow. Each test case begins with a single line containing the two integers **N** and **B**. The second line contains **N** integers. The i-th integer is $\mathbf{A_i}$, the cost of the i-th house.

Output

For each test case, output one line containing `Case #x: y`, where x is the test case number (starting from 1) and y is the maximum number of houses you can buy.

Limits

Time limit: 15 seconds.
Memory limit: 1 GB.
$1 \leq \mathbf{T} \leq 100$.
$1 \leq \mathbf{B} \leq 10^5$.
$1 \leq \mathbf{A_i} \leq 1000$, for all i.

Test Set 1

$1 \leq \mathbf{N} \leq 100$.

Test Set 2

$1 \leq \mathbf{N} \leq 10^5$.

Sample

Sample Input

```
3
4 100
20 90 40 90
4 50
30 30 10 10
3 300
999 999 999
```

Sample Output

```
Case #1: 2
Case #2: 3
Case #3: 0
```

In Sample Case #1, you have a budget of 100 dollars. You can buy the 1st and 3rd houses for 20 + 40 = 60 dollars.
In Sample Case #2, you have a budget of 50 dollars. You can buy the 1st, 3rd and 4th houses for 30 + 10 + 10 = 50 dollars.
In Sample Case #3, you have a budget of 300 dollars. You cannot buy any houses (so the answer is 0).

Note: Unlike previous editions, in Kick Start 2020, all test sets are visible verdict test sets, meaning you receive instant feedback upon submission.