问题 A: Interesting number

时间限制: 1 Sec 内存限制: 128 MB
提交: 436 解决: 227
[提交][状态][讨论版]

题目描述

You are given $n(n \geq 3)$ numbers. Lanran thinks that the third largest number is interesting, but lanran does not like multiple numbers with the same value. If there are more than one numbers equal to the third largest number, please output 'wa' (without quotes), otherwise please print it out.

输入

There are multiple testcases.

The first line of the input contains a single integer $T(1 \leq T \leq 10)$, indicates the number of the testcases.

Then T testcases follow:

For each testcase, the first line contains a single integer $n(3 \leq n \leq 100)$.

The second line contains n integers $a_1, a_2, \ldots, a_n(0 \leq a_i \leq 100)$, separated by a space.

输出

Output T integers for the answers of T testcases.

样例输入

```
7
3
1 1 1
4
2 3 3 3
5
1 2 3 4 2
3
3 1 2
4
4 9 13 13
5
20 1 20 1 9
10
6 7 8 9 10 1 2 3 4 5
```

样例输出

```
wa
wa
wa
1
9
9
8
```

提示

[提交][状态]

问题 B: Lucky number

时间限制: 1 Sec 内存限制: 128 MB
提交: 715 解决: 239
[提交][状态][讨论版]

题目描述

Given n numbers $a_1, a_2, \ldots, a_n$, and an integer k, Lanran thinks that the k^{th} smallest number is a lucky number. Please tell him what is the value of the lucky number.

输入

The first line of the input contains two integers $n, k (1 \leq n \leq 1\ 000\ 000, 1 \leq k \leq n)$.

The second line contains n integers $a_1, a_2, \ldots, a_n (0 \leq a_i \leq 1\ 000\ 000)$.

输出

Output one integer indicates the answer.

样例输入

```
5 3
1 4 2 6 8
```

样例输出

```
4
```

提示

[提交][状态]

问题 C: Only 3-sum

时间限制: 2 Sec 内存限制: 128 MB
提交: 1645 解决: 206
[提交][状态][讨论版]

题目描述

Given n numbers $a_1, a_2, \ldots, a_n$, and a lucky number m, please output the number of triple (i, j, k),satisfying $a_i + a_j + a_k = m (i < j < k)$.

输入

The first line of the input contains two integers $n, m (1 \leq n \leq 3000, 1 \leq m \leq 1\ 000\ 000\ 000)$.

The second line contains n integers $a_1, a_2, \ldots, a_n (1 \leq a_i \leq 1\ 000\ 000\ 000)$.

输出

Output one integer indicates the answer.

样例输入

```
4 9
1 3 5 3
```

样例输出

```
2
```

提示

[提交][状态]

问题 D: Vinceblack's store

时间限制: 1 Sec 内存限制: 128 MB
提交: 1030 解决: 189
[提交][状态][讨论版]

题目描述

Vinceblack has a candy store with n candies in a row, and the volume of each candy is v_i. To make the candy store more beautiful, Vince wants to move some candies to make them sorted in increasing order in volume. However, he can only exchange two adjacent candies, and the cost of the movement equals to the sum of volumes. Now Vince wants you to tell him what is the minimum cost to sort the candies.

输入

The first line of the input contains one integer $n(1 \leq n \leq 100\,000)$.
The second line contains n integers $v_1, v_2, \ldots, v_n (1 \leq v_i \leq 100\,000\,000)$.
It is guaranteed that the volume of all the candies are distinct.

输出

Output one integer indicates the minimum cost.

样例输入

```
3
2 3 1
```

样例输出

```
7
```

提示

2 3 1 -> 2 1 3 cost: 4

2 1 3 -> 1 2 3 cost: 3

total cost: 4+3=7

[提交][状态]

问题 E: Excellent power

时间限制: 1 Sec 内存限制: 128 MB
提交: 1709 解决: 142
[提交][状态][讨论版]

题目描述

In the tale, there was a great wizard at SUSTech called SUSTechDaFaShi with excellent power. With his great power, DFS led a scourge army with n ultimate soldiers. Each soldier has 2 attributes, hp and attack. What's more, DFS can cast at most p times of spell1 to make **one** soldier double its hp, and at most q times of spell2 to make **one** soldier's attack equal to its hp. DFS wants to know the maximum sum of the attack of all his soldiers after casting two kinds of spells.

输入

The first line of the input contains three integers $n, p, q (1 \leq n \leq 200\ 000, 0 \leq p \leq 20, 0 \leq q \leq 200\ 000)$.

Then n lines follow, each line contains two integers $hp_i, attack_i (1 \leq hp_i, attack_i \leq 1\ 000\ 000\ 000)$, indicates the hp and attack of the i^{th} soldier.

输出

Print one single integer, the sum of the attack of all the soldiers.

样例输入

```
2 1 1
10 8
6 1
```

样例输出

```
21
```

提示

DFS can choose not to cast any spell.

问题 F: YYJ's magic beads

时间限制: 1 Sec 内存限制: 128 MB
提交: 604 解决: 91
[提交][状态][讨论版]

题目描述

YYJ has many magic beads with two colors, red and blue. If a red bead is on the left of a blue bead and they are next to each other, they will disappear and release 1 unit of magic power. YYJ has n strings of beads, each string is consists of a_i blue beads on the left and b_i red beads on the right (To make sure they will disappear). Note that $a_i$and b_i can be zero.

YYJ now wants to connect these strings in some order and she is wondering how many units of magic power she can get at most.

输入

The first line contains an integer T, indicating the number of test cases. For each test case:

The first line contains an integer $n(1 \leq n \leq 100\ 000)$, indicating the number of string of beads.

Each of the next n lines contains two integers $a_i, b_i(1 \leq a_i + b_i \leq 10\ 000)$.

It is guaranteed that $\sum(a_i + b_i) \leq 500\ 000$.

输出

Output one integer, indicating the answer.

样例输入

```
2
2
1 2
2 1
2
1 3
2 1
```

样例输出

```
2
2
```

提示

We use 'R' to denote red beads and 'B' to denote blue beads.

We have 2 strings: BRR, BBR at first.

The string after connection is: BRRBBR, which can gain 2 units of magic power.