Maximum sum

Description

Given a set of n integers: A={a1, a2,..., an}, we define a function d(A) as below:

$$d(A) = \max_{1 \le s_1 \le t_1 < s_2 \le t_2 \le n} \left\{ \sum_{i=s_1}^{t_1} a_i + \sum_{j=s_2}^{t_2} a_j \right\}$$

Your task is to calculate d(A).

Input

The input consists of T(<=30) test cases. The number of test cases (T) is given in the first line of the input.
Each test case contains two lines. The first line is an integer n(2<=n<=50000). The second line contains n integers: a1, a2, ..., an. (|ai| <= 10000).There is an empty line after each case.

Output

Print exactly one line for each test case. The line should contain the integer d(A).

Sample Input

```
1

10
1 -1 2 2 3 -3 4 -4 5 -5
```

Sample Output

```
13
```

Hint

In the sample, we choose {2,2,3,-3,4} and {5}, then we can get the answer.

Huge input, scanf is recommended.

Source

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