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Dashboard > **Algorithms** > **Dynamic Programming** > **Bricks Game**

Badge Progress **(Details)**

Points: 126   Rank: 270330

Bricks Game 🔖

👤by **amititkgp**

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Русский \| 中文

You and your friend decide to play a game using a stack consisting of N bricks. In this game, you can alternatively remove 1, 2 or 3 bricks from the top, and the numbers etched on the removed bricks are added to your score. You have to play so that you obtain the maximum possible score. It is given that your friend will also play optimally and you make the first move.

Input Format

First line will contain an integer T i.e. number of test cases. There will be two lines corresponding to each test case: first line will contain a number N i.e. number of elements in the stack and next line will contain N numbers i.e. numbers etched on bricks from top to bottom.

Constraints

$1 \leq T \leq 5$
$1 \leq N \leq 10^5$
$0 \leq$ each number on brick $\leq 10^9$

Output Format

For each test case, print a single line containing your maximum score.

Sample Input

```
2
5
999 1 1 1 0
5
0 1 1 1 999
```

Sample Output

```
1001
999
```

Explanation

In first test case, you will pick 999,1,1. If you play in any other way, you will not get a score of 1001.
In second case, best option will be to pick up the first brick (with 0 score) at first. Then your friend will choose the next three blocks, and you will get the last brick.

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Submissions:6420

Max Score:55
Difficulty: Medium

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Current Buffer (saved locally, editable)   ⑂ ⟲   Java 7 ▾   ⤢ ⚙

```java
1 ▾ import java.io.*;
2   import java.util.*;
3   import java.text.*;
4   import java.math.*;
5   import java.util.regex.*;
6
7 ▾ public class Solution {
8
9 ▾     public static void main(String[] args) {
10 ▾        /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
11         }
12  }
```

Line: 1 Col: 1

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

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