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Manasa and Prime game 🔖

by amititkgp

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Manasa loves the NIM Game, but having played the same game so many times, she gets bored one day. So she wants to change the rules of the game. As she loves prime numbers, she makes a new rule: any player can remove only prime number of balls from a bucket. But there are infinite prime numbers. So to keep the game simple, a player can remove only x number of balls from a bucket, where x belongs to the set S.

$$S = \{2, 3, 5, 7, 11, 13\}$$

Now whole game can be described as follows:

Given N number of buckets and kth bucket having Ak number of balls, a player can choose a bucket and remove x number of balls from that bucket where x belongs to S. Manasa plays the first move against Sandy. Who will win if both of them play optimally?

Input Format

The first line contains an integer T i.e. the number of test cases.
First line of each test case will contain an integer N i.e. number of buckets.
Next line will contain N integers.

Constraints

$1 \leq T \leq 10$
$1 \leq N \leq 10^4$
$1 \leq Ak \leq 10^{18}$

Output Format

Print the name of the winner - "Manasa" or "Sandy".

Sample Input

```
2
2
10 10
3
2 2 3
```

Sample Output

```
Sandy
Manasa
```

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Submissions:887

Max Score:90

Difficulty: Hard

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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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