

Cartman and Butters Game

Cartman and Butters are playing a simple game. They have "N" boxes and each box has some amount of money inside it. The boxes are numbered as 1, 2 up to N. In each turn a player can remove a maximum of $X(i)$ amount of money from box i . Initially the value of $X(i)$ ($1 \leq i \leq N$) is "Z" for all the boxes. At any point a player can select the box i and a value K ($1 \leq K \leq X(i)$) and remove K amount of money from the box i and update the value of $X(i) = K$. That means at any point, the amount of money removed from the box can not exceed the amount of money removed from the same box previously. Now let us suppose that both the players play optimally and Cartman takes the first turn. If at any point a player can not remove any money from any box then he loses. Can you predict who will win the game?

Input

The first line will contain "T" the no. of test cases. Then "T" test cases follow. The first line of each test case will contain two integers "N" and "Z". The next line will contain "N" integers A_i ($1 \leq i \leq N$), where A_i denotes the amount of money in i th box.

Output

For each test case, print the name of winner "Cartman" or "Butters" in a separate line (without quotes).

Constraints

$1 \leq T \leq 100$
 $1 \leq N \leq 50$
 $1 \leq Z \leq 10^4$
 $1 \leq A_i \leq 1000$

Example

Input:

```
4
1 1
2
2 2
3 3
4 8
3 8 5 10
5 10
8 5 10 20 15
```

Output:

```
Butters
Butters
Cartman
```

Cartman