PROBLEM E

ENimEN

In deterministic games no chance is involved, meaning that the final result can be predicted from the initial arrangement assuming players play optimal. These games are so boring.

piloop and *poopi* are professional gamers. They play games only to study their algorithmic properties. Their field of expertise is boring games. One of the boring games they often play is Nim. Nim is a two-player game which is played using distinct heaps, each containing a number of objects (e.g. stones). Players take turns removing non-zero number of objects from a heap of their choice. The player who removes the last object will win.

They wonder if they can change the game to make it more fascinating. Would not that be more interesting if make the rules stricter? For example what if each player is obliged to take objects from the last non-empty heap as his opponent took objects from. And if there is no such heap, he can choose one heap freely and take objects from it. *ENimEN* is their new invented game based on this rule.

If you are interested in ENimEN, write a program to determine the winner given the initial arrangement assuming both players, play optimal. We believe it has also some benefits for you!

Input (Standard Input)

The first line contains *T* (T ≤ 100), the number of test cases. Each test begins with an integer *N* (N ≤ 20000) in the first line, the number of heaps followed by N integers a_i ($1 \le a_i \le 10^9$), are the number of objects in ith heap.

Output (Standard Output)

If in the optimal strategy the first player is the winner print "`poopi`" (as he always plays first), otherwise print "`piloop`". (Quotes for clarity)

Sample Input and Output

Sample Input	Sample Output
2 2 1 1 4 1 2 1 1	piloop poopi