

No Even No Life

Jojo likes even numbers and Lili likes odd numbers. They are playing a game called "Even vs Odd". The game rules are simple. There are N numbers in an array indexed from 0 to N-1. Jojo will only count every even number on even index. Lili will only count every odd number on odd index. If Jojo's counted numbers are even then Jojo wins. If Lili's counted numbers are odd then Lili wins. The game might end in a tie if both win or both lose. Help determine if Jojo wins, ties, or loses the game.

Format Input

First line of the input consists of an integer T, the number of test cases.

For every test cases, there will be an integer N, how many numbers in an array. The following line consist of N numbers.

Format Output

For every test case print "Case #X" with X as the test case's number starting from 1, followed by the result of the game. The result will be determined by this rule:

If Jojo wins print ":" without the quotation mark.

Else if Jojo loses print "(" without the quotation mark.

Else if the game is a tie print "|" without the quotation mark.

Constraints

$1 \leq T \leq 10$

$1 \leq N \leq 10^5$

$-10^6 \leq A_i \leq 10^6$

Sample Input	Sample Output
4 3 0 1 2 3 1 2 3 3 0 2 4 3 1 3 5	Case #1: : Case #2: :) Case #3: :) Case #4: :