

1296 – Again Stone Game

Alice and Bob are playing a stone game. Initially there are n piles of stones and each pile contains some stone. Alice starts the game and they alternate moves. In each move, a player has to select any pile and should remove at least one and no more than half stones from that pile. So, for example if a pile contains 10 stones, then a player can take at least 1 and at most 5 stones from that pile. If a pile contains 7 stones; at most 3 stones from that pile can be removed.

Both Alice and Bob play perfectly. The player who cannot make a valid move loses. Now you are given the information of the piles and the number of stones in all the piles, you have to find the player who will win if both play optimally.

Input

Input starts with an integer T (≤ 100), denoting the number of test cases.

Each case starts with a line containing an integer n ($1 \leq n \leq 1000$). The next line contains n space separated integers ranging in $[1, 10^9]$. The i^{th} integer in this line denotes the number of stones in the i^{th} pile.

Output

For each case, print the case number and the name of the player who will win the game.

| Sample Input | Output for Sample Input |
|--------------|-------------------------|
| 5 | Case 1: Bob |
| 1 | Case 2: Alice |
| 1 | Case 3: Alice |
| 3 | Case 4: Bob |
| 10 11 12 | Case 5: Alice |
| 5 | |
| 1 2 3 4 5 | |
| 2 | |
| 4 9 | |
| 3 | |
| 1 3 9 | |