1147 – Tug of War

A tug of war is to be arranged at the local office picnic. For the tug of war, the picnickers must be divided into two teams. Each person must be on one team or the other; the number of people on the two teams must not differ by more than 1; the total weight of the people on each team should be as nearly equal as possible.

Input

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

The first line of each case is a blank line. The next line of input contains an integer **n (2 ≤ n ≤ 100)**, the number of people at the picnic. **n** lines follow. The first line gives the weight of person 1; the second the weight of person 2; and so on. Each weight is an integer between **1** and **100000**. The summation of all the weights of the people in a case will not exceed **100000**.

Output

For each case, print the case number and the total number weights of the people in two teams. If the weights differ, print the smaller weight first.

Sample Input	Output for Sample Input
2 3 100 90 200 4 10 15 17 20	Case 1: 190 200 Case 2: 30 32