Problem 2: Minion Tug of War

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

INPUT

The first line of input contains *M* the number of cases (which is at most 100) and then 2**M* lines follow. The first line specifies the number of minions at the picnic; the second line gives the weight of each minion (which is at most 1,000), separated by a blank space. There are at most 100 minions at the picnic.

OUTPUT

The output should be in form of:

Case #1
Answers for case #1
Case #2
Answers for case #2
…
Case #*m*
Answers for case #*m*

where Answers will be on a single line containing 2 numbers: the total weight of the minions on one team, and the total weight of the minions on the other team. If these numbers differ, give the lesser first.

SAMPLE

Input
1
3
10 9 20

Output
Case #1
19 20