1024 – Eid

In a strange planet there are **n** races. They are completely different as well as their food habits. Each race has a food-eating period. That means the $\mathbf{i}^{th}$ race eats after every $\mathbf{x_i}$ **de-sec** (de-sec is the unit they use for counting time and it is used for both singular and plural). And at that particular de-sec they pass the whole day eating.

The planet declared the de-sec as 'Eid' in which all the races eat together.

Now given the eating period for every race you have to find the number of de-sec between two consecutive Eids.

Input

Input starts with an integer **T (≤ 225)**, denoting the number of test cases.

Each case of input will contain an integer **n (2 ≤ n ≤ 1000)** in a single line. The next line will contain **n** integers separated by spaces. The $\mathbf{i}^{th}$ integer of this line will denote the eating period for the $\mathbf{i}^{th}$ race. These integers will be between **1** and **10000**.

Output

For each case of input you should print a line containing the case number and the number of de-sec between two consecutive Eids. Check the sample input and output for more details. The result can be big. So, use big integer calculations.

Sample Input	Output for Sample Input
2 3 2 20 10 4 5 6 30 60	Case 1: 20 Case 2: 60