Fruit Stand
Filename: fruit

You are starting a fruit stand and want to make the most money possible! The problem is that it's difficult to determine how much fruit to order because sales are variable. Furthermore, your distributor refuses to give you different sizes of daily shipments, thus you must receive the exact same number of fruits from him every day. You've determined that you want to never miss out on a sale because you ran out of fruit. Luckily for you, you have super refrigeration so no fruit goes bad AND your friend Cassandra, using her superior prediction skills can tell you exactly how many fruit will sell each day.

The Problem
Given the number of fruit sales each day for a number of days, determine the minimum number of fruits you must order daily to ensure that you never miss a sale. Furthermore, also determine the maximum number of fruits you must store on any given evening.

The Input
The first line of the input file will contain a number n $(1 \leq n \leq 200)$ indicating the number of fruit stands to process. The information for each fruit stand will be on a single line. Each of these lines starts with a single positive integer, d $(1 \leq d \leq 1000)$ indicating the number of days for which you are running the fruit stand. This is followed by d space separated integers indicating the number of fruits sold on each day, in order. All of these values will be in between 0 and 1000, inclusive.

The Output
For each fruit stand, output two integers separated by a space on a line: the minimum number of fruits for the daily order and the maximum number of extra fruits that are ever stored in the evening while running the fruit stand.

Sample Input
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4
3 3 4 5
7 10 10 10 10 10 10 10
4 4 7 1 5
4 4 7 1 8
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Sample Output
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4 1
10 0
6 7
6 6
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Explanation of Samples 3, 4: We must order at least 6 fruits a day because if we were to order 5, then we'd only have 10 fruits to sell for days 1 and 2, but we have a potential of 11 sales. In the third sample, after the last day of the fruit stand, we've received 24 fruits but sold only 17, for a total of 7 leftover. In the fourth sample, at the end of day three, we have received 18 fruits but only sold 12 for a maximum of 6 leftover fruits.