

# Maximum Subset of Array

Given an array find the sum of the maximum non-empty subset of the array and also give the count of the subset. A subset of an array is a list obtained by striking off some (possibly none) numbers.

A non-empty subset implies a subset with at least 1 element in it.

## Input

First line contains an integer T which is the number of integers. Following this T-cases exist.

Each case starts with a line containing an integer n which is the number of elements in the array.

The next line contains n-integers which contain the value of this subset.

$T \leq 20$

$n \leq 50,000$

Each element in the array  $\leq 1000,000,000$

## Output

For each test case output the value of the maximum subset and the count of the subsets modulo 1000,000,009

## Example

**Input:**

```
2
5
1 -1 1 -1 1
6
-200 -100 -100 -400 -232 -450
```

**Output:**

```
3 1
-100 2
```