

ASTU ICPC Club

RoboCode Bonus Points

The Problem

While Robocode battles usually end with one robot remaining, this survivor is not always the winner. However, there is a bonus scheme to bias longer lasting competitors closer toward winning. Every time a robot in the battle dies, the remaining robots receive 50 bonus points. Every time a robot is the last one alive, it is given ten points per dead robot. Based on the time of death of a robot and the times of death of the other robots, determine the bonus points that the winner receives.

The Input

The first line of the input file will contain a single integer, n ($1 \leq n \leq 100$), representing the number of robot battles you'll have to score. The input for each of the n cases follows. The first line of the input for each test case will contain a single integer, r ($1 \leq r \leq 100$), representing the number of robots in the battle. The next r lines will contain one positive integer each in between 1 and 240 inclusive representing the number of seconds for which that particular robot is alive. It is guaranteed that each of these r values will be distinct.

The Output

For each battle, the first line of output will be of the following format:

RoboCode Battle #k:

where k is battle number, starting at 1.

This should be followed by one line for each robot in the battle. These lines should be in the exact same order as the robots were listed in the input. For each robot, output a single line with the following format:

The robot dead in t seconds received x bonus points.

where t represents the robot time until death and x represents the bonus points that you calculated.

Separate the output for each case with a blank line.

Sample Input

2
4
10
14
15
11
3
20
10
5

Sample Output

RoboCode Battle #1:

The robot dead in 10 seconds received 0 bonus points.
The robot dead in 14 seconds received 100 bonus points.
The robot dead in 15 seconds received 180 bonus points.
The robot dead in 11 seconds received 50 bonus points.

RoboCode Battle #2:

The robot dead in 20 seconds received 120 bonus points.
The robot dead in 10 seconds received 50 bonus points.
The robot dead in 5 seconds received 0 bonus points.