Race Results

The herd has run its first marathon! The N (1 <= N <= 10,000) times have been posted in the form of Hours (0 <= Hours <= 99), Minutes (0 <= Minutes <= 59), and Seconds (0 <= Seconds <= 59). Bessie must sort them (by Hours, Minutes, and Seconds) into ascending order, smallest times first.

Consider a simple example with times from a smaller herd of just 3 cows (note that cows do not run 26.2 miles so very quickly):

11:20:20 11:15:12 14:20:14

The proper sorting result is:

11:15:12 11:20:20 14:20:14

Input

* Line 1: A single integer: N

* Lines 2..N+1: Line i+1 contains cow i's time as three space-separated integers: Hours, Minutes, Seconds

Output

* Lines 1..N: Each line contains a cow's time as three space-separated integers

Example

Input:

Output:

11 15 12 11 20 20 14 20 14