Are we there yet?

Program Name: awty.java Input File: awty.in

Some vehicle dashboards display useful information such as estimated time left in a trip. You are tasked with writing software that, given odometer and clock readings for three legs of a 200 mile trip, will display the estimated time left in the trip.

Input

The first line of input will contain a single integer, n, indicating the number of data sets. Each of the next n lines will contain three pairs of integers. Each pair represents the odometer and clock reading at the end of the corresponding leg of the trip. Assume the following:

- the odometer and clock both start at zero when the trip begins
- each leg will cover at least 1 mile and take at least 1 second
- the total trip will not take more than 5 hours

Output

For each data set in the input, display three integers on their own line in the format "XYZ" where X, Y, and Z are the estimated seconds (rounded to the nearest integer) left in the trip at the end of each leg. Base this estimate on the number of miles left in the trip and the average speed traveled so far in the trip.

Example Input File

3 100 3600 150 7200 175 14400 1 1 2 2 3 3 1 1 2 3 3 6

Example Output To Screen

3600 2400 2057 199 198 197 199 297 394