Salary 2

ABC Company calculates the salary of the seasonal staff by hour. Note that working hours over 8 hours (Overtime) is 1.5 times the hourly wage (Wage). Given the working time of 5 days a week and hourly wages. Calculate the salary of employees and the average office hour salary and the average overtime pay.

Input

The first line is the number of employees, no more than 1000

The next n lines, consisting of 5 real numbers, are 5-day working hours and hourly wages

Output

The first n lines are the wages of n people

The next line is the average salary per office hour

The bottom line is the average salary per hour overtime.

Numbers are rounded to the 2nd decimal place

Example

Input:

3

1231025

11.000006.2

1111110

Output:

95

77.5

50

6.19

8.58