

Given an airport's total monthly passenger counts for a period of  $N$  months, forecast its passenger count for the next **12** months.

### Input Format

The first line contains an integer,  $N$ , denoting the number of months of passenger data. The  $N$  subsequent lines each contain the monthly passenger counts in the form of **2** tab-separated values:

1. The first value is *MonthNum\_X*, where  $X$  is an integer denoting the month number.
2. The second value is an integer denoting the number of passengers for that month.

### Scoring

The final score obtained upon submitting your code is solely dependent on the hidden test case. We will compute the mean of the magnitude of the percentage difference by comparing your expected answers with the actual sessions for each of the missing records in all test cases (samples included).

$$d = \sum \frac{|expected-computed|}{expected} \times 100 \quad (\text{for all forecasted values in all test cases}).$$

Your final score on a scale of **100** will be:  $2.5 \times MAX(40 - d/12, 0)$

If the mean value of  $d$  exceeds **40%** (i.e.: your predictions are off by **40%** or more on average), you will score zero. If your predictions are right on target, you will score **100**.

When you hit **Run Code** (instead of submit), we will run your solution against the sample test only. At that time, the visible score will be normalized out of **1** rather than **100**. In case your program throws an error (or has an incorrect output format) for a single test case, the overall score assigned will be zero.

**You may make no more than 15 submissions for this problem, during the contest.**

### Constraints

$$N < 150$$

### Output Format

For each line  $i$  (where  $1 \leq i \leq 12$ ), print the forecasted passenger count for month number  $N + i$  on a new line.

### Sample Input

The following is a truncated version of the first Test Case:

```
60
MonthNum_1 1226800
MonthNum_2 926891
MonthNum_3 782725
MonthNum_4 1022020
```

MonthNum_4	1023030
MonthNum_5	1126293
MonthNum_6	692565
MonthNum_7	1165880
MonthNum_8	1207156
MonthNum_9	1129954
MonthNum_10	745100
MonthNum_11	1059346
MonthNum_12	1168555
MonthNum_13	1317458
MonthNum_14	528045
MonthNum_15	1220238
MonthNum_16	874557
MonthNum_17	1033389
MonthNum_18	1034165
MonthNum_19	812094
MonthNum_20	1351419
MonthNum_21	801822
MonthNum_22	1044266
MonthNum_23	722871
MonthNum_24	742100
MonthNum_25	839471
MonthNum_26	1201199
MonthNum_27	796265
MonthNum_28	953887
MonthNum_29	1124602
MonthNum_30	1070181
MonthNum_31	1160366
MonthNum_32	1131150
MonthNum_33	1151813
MonthNum_34	1065316
MonthNum_35	914800
MonthNum_36	1093034
MonthNum_37	937898
MonthNum_38	991612
MonthNum_39	865649
MonthNum_40	990565
MonthNum_41	965414
MonthNum_42	949248
MonthNum_43	1168905
MonthNum_44	593112
MonthNum_45	1156922
MonthNum_46	870095
MonthNum_47	1023262
MonthNum_48	788327
MonthNum_49	543605
MonthNum_50	510786
MonthNum_51	734714
MonthNum_52	1133025
MonthNum_53	1461091
MonthNum_54	635481
MonthNum_55	1104107
MonthNum_56	844960
MonthNum_57	1271967
MonthNum_58	574319
MonthNum_59	1063900
MonthNum_60	724737

## Sample Output

1563178  
 1312558  
 1312558  
 1388316  
 1325942  
 1312550

587396  
1293945  
1061128

590392  
1092215  
1446327

### **Explanation**

The **12** printed lines of output are the forecasted passenger counts for the **12** months following month **60** (i.e.: **61** through **72**).