

MCQ

In Bangladesh, you have to attend an admission test to get yourself admitted in a university. In that admission test, you have to answer 120 Multiple Choice Question(MCQ). Each MCQ carry 1 mark. May be it seems pretty easy to you. To increase the competition University Admission Committee, add some difficulty, and made it slightly difficult. They made a new rule.

Now, for each wrong answer, 1 marks and extra .25 marks will be deducted from total marks. That means 1.25 marks will be intersected from total marks you have answered. For an example, if you have answered total 2 MCQ, and 1 is wrong, then you will get .75 marks ($2-1*1.25$). So, in this system, total marks can be negative. Now, students get scared, and if they are not sure about any answer of a question, they do not answer. After examination, University Admission Committee publishes result providing total marks of the examinee.

All students are eager to know how many MCQ he/she answered were wrong, and how many were right. But, you don't want to make them unhappy by telling exact deducted marks. So, you tell them the percentage of wrong answer among total number of MCQ he/she answered.

You have total number of MCQ examinee have answered (TA) and total marks he/she have got (TM). You have to tell him/her what is the percentage of total wrong answer.

Input

Input will starts with test case T.

After that, T lines will be input.

Each line consists of two decimal number, total number of MCQ answered TA ($0 \leq TA \leq 120$) and total marks TM he/she got.

Output

Output will be percentage of wrong answer among total number of answered MCQ.

Example

Input:

```
3
100 90.000000
65 31.250000
96 -24.000000
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Output:

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8.000000%
41.538462%
100.000000%
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