Problem F. Pregunta

Time limit	1000 ms
Mem limit	262144 kB
OS	Windows

Husam was preparing himself for the Graduate Record Examinations (GRE). Yesterday, he read a very hard question, but he could not find a solution for it, so he did not sleep all the night.

Husam decided to tell you about the question, so you can help him to find the solution. The question is: `If the price of the orange was increased by` x`%. How many oranges can be bought for the amount that used to buy` y `oranges?`

Can you help Husam to solve this question?

Input

The first line contains an integer T ($1 \le T \le 10^4$), where T is the number of test cases.

Then T lines follow, each line contains two integers y and x ($1 \le y \le 10^6$) ($0 \le x \le 100$), where y is the number of oranges, and x is the percentage increase in price.

Output

For each test case, print a single line containing the number of oranges that can be bought for the same amount of money that used to buy y oranges before the price increased.

It is guaranteed that all answers are integer numbers. Do not print any floating-point values.

Examples

Input	Output
3 10 25 300 20 550 100	8 250 275