Deposit interest rates

An deposits an amount of money N into the bank with an interest rate L (%). Each year, interest is added into the deposit. In How many years An will gain M.

Input

The first line is the number of test cases.

Each test set consists of three integers N L M.

Note: all numbers are in real number and N <M.

Output

For each test case, print the result on one line

Example

Input:

2 200.00 6.5 300 500 4 1000.00

Output:

7 18