

# Savings Account

**Input:** `account.in`

**Output:** `account.out`

Suppose you open a savings account with a certain initial balance. You will not make any withdrawals or further deposits for a number of years. The bank will compound your balance (add the annual interest) once a year, on the anniversary of the opening of the account. Your goal is to achieve a certain target amount in your savings account. In how many years will the target amount be achieved?

## Input

The input file will contain data for one or more test cases, one test case per line. Each line will contain three numbers: the initial balance, the annual interest rate (as a percentage of the balance), and the target amount, separated by blank spaces. These will be positive numbers; they may or may not contain a decimal point. The target amount will be greater than the initial balance. The input is terminated by end-of-file

## Output

For each line of input, your program will produce exactly one line of output: This line will contain one positive integer value: the number of years required to achieve the target amount.

## Sample input

```
200.00 6.5 300
500 4 1000.00
```

## Output for sample input

```
7
18
```