微软**2017**年预科生计划在线编程笔试 已经报名

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题目1 : Legendary Items

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时间限制: 10000ms
单点时限: 1000ms
内存限制: 256MB

描述

Little Hi is playing a video game. Each time he accomplishes a quest in the game, Little Hi has a chance to get a legendary item.

At the beginning the probability is *P%*. Each time Little Hi accomplishes a quest without getting a legendary item, the probability will go up *Q%*. Since the probability is getting higher he will get a legendary item eventually.

After getting a legendary item the probability will be reset to $\lfloor P/(2^I)\rfloor$% ($\lfloor x\rfloor$ represents the largest integer no more than x) where I is the number of legendary items he already has. The probability will also go up *Q%* each time Little Hi accomplishes a quest until he gets another legendary item.

Now Little Hi wants to know the expected number of quests he has to accomplish to get N legendary items.

Assume *P* = 50, *Q* = 75 and *N* = 2, as the below figure shows the expected number of quests is

2*50%*25% + 3*50%*75%*100% + 3*50%*100%*25% + 4*50%*100%*75%*100% = 3.25
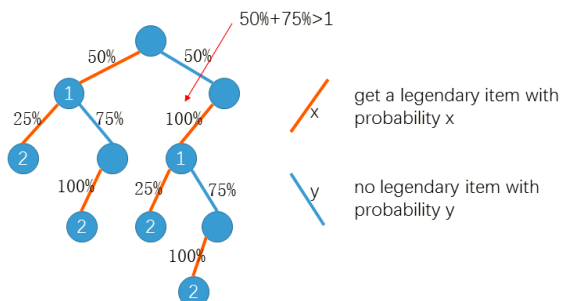
输入

The first line contains three integers *P*, *Q* and *N*.

$1 \le N \le 10^6$, $0 \le P \le 100$, $1 \le Q \le 100$

输出

Output the expected number of quests rounded to 2 decimal places.

样例输入

```
50 75 2
```

样例输出

```
3.25
```

| Emacs | Normal | Vim | | Java ▾ | ⤢ |

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