Problem A: Slow Typing

Filename: *slow*
Time limit: *1 second*

For the first part of class, Arup could only type with 8 out of his 10 fingers, due to an injury he got over Winter Break. Naturally, this slowed down his typing speed, meaning that live coding demos took longer than usual. Intuitively, Arup hoped that he would type at 80% of his normal typing speed, but as he soon discovered, the slow down is actually worse! It follows a square law, as follows: If you have x working fingers, then you type at only x^2 percent of your normal rate. Thus, Arup was only typing at 64% of his regular speed, not 80%.

Arup would like for you to write a program that calculates how long it would take someone to type a piece of code given their regular typing rate, the number of fingers they can currently use, and the length of the code to be typed.

For example, if Arup's regular typing rate is 5.0 lines per minute, he is using 8 fingers and is typing 100 lines of code, then his adjusted typing rate is 5.0 x .64 = 3.2 lines/minute. At this rate, it would take him 31.25 minutes to type out the code.

The Problem

Given Arup's regular typing rate in lines of code per minute, the number of fingers he's using, and the number of lines of code he'd like to write, calculate how long it will take him to write the code.

The Input

The first line of input will contain a single positive integer, $\boldsymbol{c}$ ($1 \le \boldsymbol{c} \le 25$), representing the number of input cases to process. Each of the input cases follow. Each test case is on a line by itself. The first number of each test case will be $\boldsymbol{r}$ ($0.1 \le \boldsymbol{r} \le 50.0$), Arup's regular typing rate in lines of code per minute, expressed as a decimal with no more than 2 digits after the decimal. This is followed by a positive integer $\boldsymbol{f}$ ($1 \le \boldsymbol{f} \le 10$), representing the number of fingers Arup is using to type. The last piece of data for each test case will be $\boldsymbol{n}$ ($10 \le \boldsymbol{n} \le 10000$), representing the number of lines of code Arup wants to type.

The Output

For each test case, on a line by itself, output the number of minutes it will take for Arup to write the code. Express each answer ***rounded to two decimal places***. **Note: The input will be such that adding or subtracting 0.0001 to the actual answer will not change the answer rounded to two decimal places.**

Sample Input

```
2
5.0 8 100
3.64 3 1234
```

Sample Output

```
31.25
3766.79
```