9 3D Coffee
4 points

Introduction
You have just bought a 3D printer and you want to run a successful 3D coffee bar business. To calculate the price of every printed part you sell, you just apply the following formula:

$$price = volume\ printed\ [cm^3]\ x\ p\ [€/cm^3]$$

Where p is the price per cm^3. If the customer doesn't have a drink in the coffee bar the value of p is 2 €/cm^3. But you promote a special offer that if customer buys one or more drinks then the value of p is reduced to 1.8 €/cm^3.

So to compute the final price for each printer part your cash register will receive two values: one specifying the volume of the printed part and a second one detailing if a customer has had at least one drink.

Input
The input consists of several lines of two values following this format:
<3D volume printed with two decimals> <Just Y or N to report if the customer has had a drink>
The input ends with a line with -1 integer value.

Output
Print out the invoice price for each 3D volume printed with two decimals rounding.

Example

Input
```
50.12 Y
50.12 N
100 Y
-1
```

Output
```
90.22
100.24
180.00
```