

# Interesting...

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## Info

Interest on a credit card's unpaid balance is calculated using the average daily balance. Suppose that `netBalance` is the balance shown in the bill, `payment` is the payment made, `d1` is the number of days in the billing cycle, and `d2` is the number of days payment is made before billing cycle. Then, the average daily balance is:

```
averageDailyBalance = (netBalance * d1 - payment * d2) /
```

```
d1.
```

 The interest on the unpaid balance is: 

```
interest =
```

```
averageDailyBalance * interestRate
```

 where `interestRate` is the interest rate per month. Write a program that accepts as input `netBalance`, `payment`, `d1`, `d2`, and `interestRate`. The program outputs the interest. Format your output to two decimal places.

## Implementation

*These are the constants and functions used to calculate the program output.*

```
>> functions have been provided
```

## Input

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*The following user data is needed to calculate the program output.*

- Net Balance -> float
- Payment -> float
- Length of Billing Cycle -> char
- Time Before Payment -> char
- Interest Rate -> float

## Example

"What was the balance on your last billing statement?"

"What was your last payment?"

"What is the length of your billing cycle?"

".....days or something?"

"What is your normal interest rate?"

## Output

*The following system data is output by the program.*

- Interest -> float

## Example

Your interest this period was:"

# Test Data

	Balance	Payment	Billing Cycle
Test 1	\$259.00	\$25.00	30 Days
Test 2	\$523.00	\$77.43	90 Days
Test 3	\$163.34	\$59.23	30 Days

	Payment Day	Interest %	Interest \$
Test 1	15th	2.50%	\$6.16250
Test 2	60th	23.11%	\$108.936
Test 3	12th	3.10%	\$4.32909