Interesting...

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

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

- Net Balance -> float
- Payment -> float
- Length of Billing Cycle -> short
- Days After Payment -> short
- Interest Rate -> float

Example

```
"Last Payment:" $25.00
"Length of Billing Cycle:" 30 Days
"Remaining Days in Billing Cycle:" 15 Days
"Last Statement Balance:" $259.00
"Current Interest Rate:" 2.5%
```

Output

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

- Interest -> float

Example

```
"Your interest this period was" $6.16.
```

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