Broke or Broker?

Info

Cindy uses the services of a brokerage firm to buy and sell stocks. The firm charges 1.5% service charges on the total amount for each transaction, buy or sell. When Cindy sells stocks, she would like to know if she gained or lost on a particular investment. Write a program that allows Cindy to input the number of shares sold, the purchase price of each share, and the selling price of each share. The program outputs the amount invested, the total service charges, amount gained or lost, and the amount received after selling the stock.

Implementation

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

```
SERVICE_FEE = .015

investment -> shares_sold X cost_per_share

profits -> shares_sold X value_per_share

service_charge -> (investment + profits) X SERVICE_FEE

```

```
net_return -> profits - investment - service_charge

>> values are rounded to 3 decimal places
>> to allow for better precision
```

Input

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

- Shares Sold -> double
- Cost per Share (on Purchase) -> float
- Value per Share (on Sale) -> float

Example

```
"How many shares did you sell?" 20 shares
"What was the cost per share?" $12.32 per share
"What was the value per share on sale?" $15 per share
```

Output

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

- Total Investment -> double
- Service Fee -> float
- Net Return -> double

Example

```
"You invested:" $246.40
"You were charged a total of" $8.196 "in service fees."
"You managed a net gain of" $45.404
```

Test Data

Input	Shares Sold	Cost per Share	Value per Share
Test 1	20	$12.32	$15
Test 2	278	$43.641	$76.117
Test 3	1053	$5.026	$5.725

Output	Initial Investment	Service Charges	Net Return
Test 1	$246.40	$8.196	$45.404
Test 2	$12132.198	$499.391	$8528.937
Test 3	$5292.378	$169.812	$566.235