

# Stock Transactions

## Problem ID: p01stocktransactions

Write a Python program which allows the user to enter information about stock transactions (buy and sell) for a given stock symbol. The program then calculates broker commission, which is 3% of the total price paid when buying or the total amount received when selling, as well as the total profit or loss of the transactions, taking commission into account.

### Input

The first line is a string, `symbol`, consisting of 1-6 English uppercase letters, denoting the stock symbol.

The second line is an integer `nshares`,  $1 \leq nshares \leq 1000$ , denoting the number of shares bought/sold of `symbol`.

The third line is a float, `bprice`,  $0 < bprice \leq 1000$ , denoting the buying price per share of `symbol`, given with at most two digits after the decimal point.

The fourth line is a float, `sprice`,  $0 < sprice \leq 1000$ , denoting the selling price per share of `symbol`, given with at most two digits after the decimal point.

### Output

The output consists of eight lines formatted as follows:

Transactions for stock: `symbol`

Bought `nshares` shares @ `bprice`

Paid `total_buy_price`

Commission when buying: `buy_commission`

Sold `nshares` shares @ `sprice`

Received `total_sell_price`

Commission when selling: `sell_commission`

Profit or loss: `profit_loss`

In the above output, the following calculated values are used:

`total_buy_price`: the total buying price.

`buy_commission`: the broker commission when buying.

`total_sell_price`: the total selling price.

`sell_commission`: the broker commission when selling.

`profit_loss`: the profit (positive) or loss (negative) from the stock transactions.

You should round all float output, but not calculations, to two digits after the decimal point by using the built-in `round()` function. Example: `round(12.473, 2)` returns 12.47.

**Sample Input 1**

AAPL  
300  
145.67  
188.12

**Sample Output 1**

The stock symbol:  
Number of shares:  
The stock buying price:  
The stock selling price:  
  
Transactions for stock: AAPL  
Bought 300 shares @ 145.67  
Paid 43701.0  
Commission when buying: 1311.03  
Sold 300 shares @ 188.12  
Received 56436.0  
Commission when selling: 1693.08  
Profit or loss: 9730.89

**Sample Input 2**

MSFT  
120  
353.45  
344.17

**Sample Output 2**

The stock symbol:  
Number of shares:  
The stock buying price:  
The stock selling price:  
  
Transactions for stock: MSFT  
Bought 120 shares @ 353.45  
Paid 42414.0  
Commission when buying: 1272.42  
Sold 120 shares @ 344.17  
Received 41300.4  
Commission when selling: 1239.01  
Profit or loss: -3625.03

**Sample Input 3**

GOOGL  
50  
129.6  
130.48

**Sample Output 3**

The stock symbol:  
Number of shares:  
The stock buying price:  
The stock selling price:  
  
Transactions for stock: GOOGL  
Bought 50 shares @ 129.6  
Paid 6480.0  
Commission when buying: 194.4  
Sold 50 shares @ 130.48  
Received 6524.0  
Commission when selling: 195.72  
Profit or loss: -346.12