**Programming Exercise 2-12**

# Named constants

COMMISSION\_RATE = 0.03

NUM\_SHARES = 2000

PURCHASE\_PRICE = 40.0

SELLING\_PRICE = 42.75

# Variables

amountPaidForStock = 0.0 # Amount paid for the stock

purchaseCommission = 0.0 # Commission paid to purchase stock

totalPaid = 0.0 # Total amount paid

stockSoldFor = 0.0 # Amount stock sold for

sellingCommission = 0.0 # Commission paid to sell stock

totalReceived = 0.0 # Total amount received

profitOrLoss = 0.0 # Amount of profit or loss

# Calculate the amount that Joe paid for the stock, not

# including the commission.

amountPaidForStock = NUM\_SHARES \* PURCHASE\_PRICE

# Calculate the amount of commission that Joe paid his broker

# when he bought the stock.

purchaseCommission = COMMISSION\_RATE \* amountPaidForStock

# Calculate the total amount that Joe paid, which is the amount

# he paid for the stock plus the commission he paid his broker.

totalPaid = amountPaidForStock + purchaseCommission

# Calcualate the amount that Joe sold the stock for.

stockSoldFor = NUM\_SHARES \* SELLING\_PRICE

# Calculate the amount of commission that Joe paid his broker

# when he sold the stock.

sellingCommission = COMMISSION\_RATE \* stockSoldFor

# Calculate the amount of money left over, after Joe paid

# his broker.

totalReceived = stockSoldFor - sellingCommission

# Calculate the amount of profit or loss. If this amount is a

# positive number, it is profit. If this is a negative number it

# is a loss.

profitOrLoss = totalReceived – totalPaid

# Print the required data.

print ("Amount paid for the stock: $", format(amountPaidForStock, '.2f'))

print ("Commission paid on the purchase: $", format(purchaseCommission, '.2f'))

print ("Amount the stock sold for: $", format(stockSoldFor, '.2f'))

print ("Commission paid on the sale: $", format(sellingCommission, '.2f'))

print ("Profit (or loss if negative): $", format(profitOrLoss, '.2f'))

Constant Real COMMISSION\_RATE = 0.03

Constant Integer NUM\_SHARES = 2000

Constant Real PURCHASE\_PRICE = 40.0

Constant Real SELLING\_PRICE = 42.75

Declare Real amountPaidForStock

Declare Real purchaseCommission

Declare Real totalPaid

Declare Real stockSoldFor

Declare Real sellingCommission

Declare Real totalReceived

Declare Real profitOrLoss

Set amountPaidForStock = NUM\_SHARES \* PURCHASE\_PRICE

Set purchaseCommission = COMMISSION\_RATE \* amountPaidForStock

A

Set totalPaid = amountPaidForStock + purchaseCommission

Set stockSoldFor = NUM\_SHARES \* SELLING\_PRICE

Set sellingCommission = COMMISSION\_RATE \* stockSoldFor

Set profitOrLoss = totalReceived - totalPaid

Set totalReceived = stockSoldFor - sellingCommission

B

Display “Amount paid for stock: $”, amountPaidForStock

End

Display “Profit (or loss if negative): $, profitOrLoss

Display “Commission paid on the sale: $”, sellingCommission

Display “Amount the stock sold for: $”, stockSoldFor

Start

A

B

Display “Commission paid on the purchase: $”, purchaseCommission