## 3.13

- a) print "enter your name: "
- b) p = a + b + c
- c) if x is greater than y set x to ten

else

set x to twenty

d) input a, input b, input c, input d

## 3.14

- a) Input the first integer
   Input the second integer
   Multiply the two numbers
   Output the product
- b) Input the first number from the keyboard
  Input the second number from the keyboard
  If the first number is smaller than the second number
  Print the first number
  else if the second number is smaller than the first number
  Print the second number
  else

Print a message stating that the numbers are equal

c) Initialize total to zero
Initialize counter to zero

Input a value from the keyboard

While the input value is not equal to -1

Add the number to the running total

Add one to the counter

Input the next number

If counter is not equal to zero

Set the average to the total divided by the counter

Print the average
else

Print "No number was entered"

# 3.16

### Top

Determine the sale tax on the collection, including the county tax and state tax.

## First refinement

Input the total collection for a month and month's name, calculate and print the sales. Calculate and print the county sales tax, state sales tax and total sales tax.

## Second refinement

Input the total amount collected in first month

While the sentinel value (-1) has not been entered for the total amount collected.

Input the name of the month.

Output the total collection.

Calculate and print the sales.

Calculate and print the county tax.

Calculate and print the state tax.

Calculate and print the total tax.

Input the total amount collected in next month.

## 3.17

## Top

Determine the required monthly payment of each customer's account.

#### First refinement

Input the account number, mortage amount, mortage term, interest rate. Calculate the total interest payable. Add the total interest payable to the mortage amount. Calculate and print the required monthly payment.

Then process the next customer.

#### Second refinement

Input the first customer's account number

While the sentinel value (-1) has not been entered for the account number.

Input the customer's mortage amount.

Input the customer's mortage term.

Input the customer's interest rate.

Calculate the total interest payable.

Add the total interest payable to the mortage amount.

Calculate and print the required monthly payment.

Input the next customer's account number.