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Question 1

1.1)begin

totalStuds = 0

totalPercentage = 0

input studName

while studName ? "ZZZ"

input studAddress, studExamPercentage

totalStuds = totalStuds + 1

totalPercentage = totalPercentage + studExamPercentage

print studName, studAddress, studExamPercentage

endWhile

print "Total: ", totalPercentage, "Average: ", totalPercentage/totalStuds

1.2)

1.3)begin

TotalStud = 0

StudName

StudNumber

StudScore

StudMaxScore

input StudNumber

while StudNumber ? 0

input StudName, StudScore, StudMaxScore

TotalStud = TotalStud + 1

1.4)begin

TotalM = 0

TotalF = 0

input EntranceName

while EntranceName ? "ZZZ"

input EntranceAge, EntranceSex

print EntranceName, EntranceAge, EntranceSex

if EntranceSex = "Male" then

TotalM = TotalM + 1

else

TotalF = TotalF + 1

endIf

end

print "Total: ", TotalM

print "Total: ", TotalF

1.5)begin

Correspondence = 0

Fulltime = 0

TotalStuds = 0

do while >= 50

input StudName, StudAdress, StudCode

If StudCode = 1 then

Correspondence = Correspondence + 1

TotalStuds = TotalStuds + 1

print StudName, StudAdress, "Correspondence"

elseIf StudCode = 2 then

Fulltime = Fulltime + 1

TotalStuds = TotalStuds +1

print StudName, StudAdress, "Fulltime"

else

msg"Code must be either 1 or 2"

endIf

endDo

print "Total Fulltime", Fulltime

1.6)begin

Company[1] = 0

Company[2] = 0

Company[3] = 0

Company[4] = 0

1.7)begin

totalProfit = 0

input CostPrice

while CostPrice ? 0

input Sellprice

Profit = Sellprice - CostPrice

totalProfit = totalProfit + Profit

endWhile

print "The total Profit is: ", totalProfit

1.8)begin

input Feet, Inches

print Feet \* 30.48, Inches \* 2.54

1.9)begin

input Liters, Distance, Cost

TripCost = Distance \* Liters / 100 \* Cost

1.10)begin

AnnualProp = 0.02

AnnualInsur= 0.005

input HomeValue, MonthPay, WaterLights,

PropertyTax = HomeValue \* AnnualProp

Insurance = HomeValue \* AnnualInsur

print (MonthPay + WaterLights + PropertyTax + Insurance) \* 12

Question 2

2.1)begin

Hours = 0

Min = 0

SecRem = 0

input Seconds

SecRem = Seconds

do while SecRem <= 59

Min = Min + 1

SecRem = SecRem - 60

if Min = 60 then

Hours = Hours + 1

Min = 0

endIf

doEnd

print Hours, Min, SecRem

2.2)Begin

Candadate1 = 0

Candedate2 = 0

Candedate3 = 0

Candedate4 = 0

Candedate5 = 0

Input Vote

While Vote ? 0

If Vote = 1 Then

Candedate1 = Candedate1 + 1

elseIf Vote = 2 Then

Candedate2 = Candedate2 + 1

elseIf Vote = 3 Then

Candedate3 = Candedate3 + 1

elseIf Vote = 4 Then

Candedate4 = Candedate4 + 1

elseIf Vote = 5 Then

Candedate5 = Candedate5 + 1

else

Message "Invalid Number"

endWhile

print "Vote For Candedate 1 ", Candedate1

print "Vote For Candedate 2 ", Candedate2

print "Vote For Candedate 3 ", Candedate3

print "Vote For Candedate 4 ", Candedate4

print "Vote For Candedate 5 ", Candedate5

2.3)begin

EmployeePay = 0

TotalPay = 0

input EmployeeNumber

while EmployeeNumber ? 0

input Name, HoursWorked, RatePay

EmployeePay = HoursWorked \* RatePay

TotalPay = TotalPay + EmployeePay

print EmployeeNumber, Name, HourWorked, RatePay, EmployeePay

endWhile

print "Total Salary: ", TotalPay

2.4)

2.5)

2.6)Begin

Code1 = 0

Code2 = 0

Code3 = 0

Code4 = 0

Code5 = 0

Input Subscriber

While Subscriber ? 0

If Subscriber = 1 Then

Code1 = Code1 + 1

elseIf Subscriber = 2 Then

Code2 = Code2 + 1

elseIf Subscriber = 3 Then

Code3 = Code3 + 1

elseIf Subscriber = 4 Then

Code4 = Code4 + 1

elseIf Subscriber = 5 Then

Code5 = Code5 + 1

else

Message "Invalid Number"

endWhile

print "Subscriber For Code 1 ", Code1

print "Subscriber For Code 2 ", Code2

print "Subscriber For Code 3 ", Code3

print "Subscriber For Code 4 ", Code4

print "Subscriber For Code 5 ", Code5

print "Total Subscribers ", Code1 + Code2 + Code3 + Code4 + Code5

2.7)begin

TotalFemaleDep1 = 0

TotalFemaleDep2 = 0

Input SalesNumber

While SalesNumber ? 0

TotalSal = 0

input Gender

if Gender = "M" OR Gender = "F" then

input Department

if Department = 1 then

input SalesAmt, BasicSal

if SalesAmt >= 3000 then

TotalSal = BasicSal + (SalesAmt \* 0.1)

else

TotalSal = BasicSal

endIf

if Gender = "F" then

TotalFemaleDep1 = TotalFemaleDep1 + 1

endIf

elseIf Department = 2 then

input SalesAmt, BasicSal

if SalesAmt >= 3000 then

TotalSal = BasicSal + (SalesAmt \* 0.1)

else

TotalSal = BasicSal

endIf

if Gender = "F" then

TotalFemaleDep2 = TotalFemaleDep2 + 1

endIf

else

msg "Department can only be 1 or 2"

endwhile

else

msg "Gender can only be M or F"

endIf

print SalesNumber, Gender, Department, SalesAmt, BasicSal, TotalSal

endWhile

print "Department 1 ", TotalFemaleDep1

print "Department 2 ", TotalFemaleDep2

2.8)begin

TotalMen = 0

TotalFemale = 0

Input Nuber

While Number ? 0

input Gender

if Gender = "M" OR Gender = "F" then

input Salary

if Gender = "M" then

if Salary >= 1000 then

TotalMen = TotalMen + 1

endIf

else

if Salary < 500 then

TotalFemale = TotalFemale + 1

endIf

endIf

else

msg "Gender can only be M or F"

endIf

endWhile

print "Men with salary > 1000 ", TotalMen

print "Women with salary < 500 ", TotalFemale

2.9)begin

DepCount1 = 0

DepCount2 = 0

DepSales1 = 0

DepSales2 = 0

Input Department

While Department ? 0

input Salesname, SalesAmt

if SalesAmt >= 1000 then

Commission = SalesAmt \* 0.05

else

Commission = SalesAmt \* 0.03

endIf

if Department = 1 then

DepCount1 = DepCount1 + 1

DepSales1 = DepSales1 + SalesAmt

else

DepCount2 = DepCount2 + 1

DepSales2 = DepSales2 + SalesAmt

endIf

print Department, Salesname, SalesAmt, Commission

endWhile

print "Sales people in Department 1 ", DepCount1, "Sales: ", DepSales1

print "Sales people in Department 2 ", DepCount2, "Sales: ", DepSales2

2.10)

2.11)begin

CountR10 = 0

Count50c = 0

Count5c = 0

Count1c = 0

AmountCents = 0

RemainCents = 0

input amount

AmountCents = amount \* 100

CountR10 = function trunc(AmountCents/1000)

RemainCents = AmountCents - (CountR10 \* 1000)

AmountCents = RemainCents

Count50c = function trunc(AmountCents/50)

RemainCents = AmountCents - (Count50c \* 50)

AmountCents = RemainCents

Count5c = function trunc(AmountCents/5)

RemainCents = AmountCents - (Count5c \* 5)

Count1c = RemainCents

2.11)

2.12)

2.13)begin

BalancePM = 0

InterestPM = 0

BalancePA = 0

InterestPA = 0

TotalInt = 0

Month = 1

Year = 1

InterestRate = 0.07

input Name, AccountNum, Gender, Age, Initial, MonthDep

do while Initial > TotalInt

if Gender = "M" OR Age < 30 then

InterestRate = 0.05

elseIf Gender = "F" OR Age > 60 then

InterestRate = 0.1

endIf

BalancePM = Initial + (MonthDep \* Month)

InterestPM = InterestRate \* BalancePM/12

BalancePM = BalancePM + InterestPM

print "Account Status: ", BalancePM, "Interest Earned: ", InterestPM

BalancePA = BalancePA + BalancePM

InterestPA = InterestPA + InterestPM

Month = Month + 1

if Month > 12 then

Year =Year + 1

Month = 1

print "Annual Status: ", BalancePA, "Interest Earned: ", InterestPA

endIf

doEnd

print "Summary of Account Status: ", BalancePA, "Interest Earned: ", InterestPA

2.14)begin

Product1 = 250

Product2 = 175

Commission = 0.125

CommissionPaid = 0

2.15)begin

Answer = 0

isWhole = true

for x from 1 to 10

input Number, Choice

switch Choice

case Choice of "a"

Answer = Number\*2

case Choice of "b"

Answer = Number + 6

case Choice of "c"

Answer = Number/2

if Number MOD 2 >0 then

isWhole = false

endIf

endSwitch

print "Number :", Number

print "Choice :", Choice

print "Answer :", Answer

if isWhole AND Choice = "c" then

print "The Answer is a whole number"

elseIf isWhole = false AND Choice = "c" then

print "The Answer is NOT a whole number"

endIf

endFor