**C++ Examples from Homework:**

// main.cpp

// Two rectangle comparison

// Created by ANDRIS PINKHASIK on 9/15/14.

// Copyright (c) 2014 Dre's Bay. All rights reserved.

/\* This program will ask for length & width of 2 rectangles. The program will tell

the user which rectangle has the greater area or if areas are the same. \*/

#include <iostream>

using namespace std;

int main()

{

double rectangle1\_length, rectangle1\_width, rectangle2\_length, rectangle2\_width;

int rectangle1\_area;

cout << "Enter the length for rectangle1: ";

cin >> rectangle1\_length;

cout << "Enter the width for rectangle1: ";

cin >> rectangle1\_width;

rectangle1\_area = rectangle1\_length \* rectangle1\_width;

cout << "area of rectangle1 is " << rectangle1\_area << endl;

int rectangle2\_area;

cout << "Enter the length for rectangle2: ";

cin >> rectangle2\_length;

cout << "Enter the width for rectangle2: ";

cin >> rectangle2\_width;

rectangle2\_area = rectangle2\_length \* rectangle2\_width;

cout << "The area of rectangle2 is " << rectangle2\_area << endl;

if ( rectangle1\_area > rectangle2\_area)

{

cout << "The area of rectangle1 is greater than rectangle2\n";

}

else if( rectangle1\_area < rectangle2\_area)

{

cout << "The area of rectangle2 is greater than rectangle1\n";

}

if ( rectangle1\_area == rectangle2\_area)

{

cout << "Both areas are equal\n";

}

else

{

cout << "This is the end of the game\n";

}

}

// main.cpp

/\* Rainfall - This programm will ask the user to enter the amount of rainfall for each month.

The program will calculate the total, average, highest, and lowest rainfall for the year.\*/

// Created by ANDRIS PINKHASIK on 11/17/14.

// Copyright (c) 2014 Dre's Bay. All rights reserved.

#include <iostream>

#include <string>

using namespace std;

double sumRainfall(double[], int);

double highMonth(double[], int);

double lowMonth(double[], int);

int main()

{

const int Num\_Months = 12;

double total, highest, lowest, average;

string name[Num\_Months] = {"January", "February", "March", "April","May",

"June", "July", "August", "September", "October", "November", "December"};

double rainfall[Num\_Months] = {};

for(int month = 0; month < Num\_Months;month++)

{

cout << "The rainfall for the month of " << name[month] << ":";

cin >> rainfall[month];

}

total = sumRainfall(rainfall, Num\_Months);

average = total/ Num\_Months;

highest = highMonth(rainfall, Num\_Months);

lowest = lowMonth(rainfall, Num\_Months);

cout << "The total rainfall for the year is: ";

cout << "\t" << total << endl;

cout << "The average rainfall for the year is: ";

cout << "\t" << average << endl;

cout << "The highest amount of rainfall in a month is: ";

cout << "\t" << highest << endl;

cout << "The lowest amount of rainfall in a month is: ";

cout << "\t" << lowest << endl;

return 0;

}

double sumRainfall( double array[], int size)

{

double total = 0.0;

for (int count = 0; count < size;count++)

{

total = total + array[count];

}

return total;

}

double highMonth(double array[], int size)

{

double highest = array[0];

for (int count = 1; count < size; count++)

{

if (array[count] > highest)

{

highest = array[count];

}

}

return highest;

}

double lowMonth(double array[], int size)

{

double lowest = array[0];

for (int count = 1; count < size; count++)

{

if (array[count] < lowest)

{

lowest = array[count];

}

}

return lowest;

}

// main.cpp

// Mortgage paymentk

// Created by ANDRIS PINKHASIK on 9/11/14.

// Copyright (c) 2014 Dre's Bay. All rights reserved.

/\* Program will calculate customer's monthly costs for various expenses. It will also display the annual expense. \*/

#include <iostream>

using namespace std;

int main()

{

int monthly\_expense;

int annual\_expense;

double rent, utilities, phones, cable;

// Input rent payment

cout << "Hello, input your monthly rent:";

cin >> rent;

// Input utilities payment

cout << "Input your utilities payment:";

cin >> utilities;

// Input phones payment

cout << "Input your phone payment:";

cin >> phones;

// Input cable payment

cout << "Input your cable payment:";

cin >> cable;

monthly\_expense = rent + utilities + phones + cable;

annual\_expense = monthly\_expense \* 12;

cout << "Your monthly expenses are:" << monthly\_expense << endl;

cout << "Your annual expenses are:" << annual\_expense << endl;

return 0;

}

// main.cpp

// MarkupHw

/\* Program will ask user to enter item's wholesale cost and markup value. The Program will use a function to calculate the retail price of the item.\*/

// Created by ANDRIS PINKHASIK on 10/23/14.

// Copyright (c) 2014 Dre's Bay. All rights reserved.

#include <iostream>

double calculateRetail (double, double);

int main()

{

using namespace std;

cout << "Please enter a wholeSale value: ";

double wholeSale;

cin >> wholeSale;

cout << "Please enter a markUp value: ";

double markUp;

cin >> markUp;

double totalCost;

if ( wholeSale > 0 && markUp > 0)

{

totalCost= calculateRetail(wholeSale, markUp);

cout << "The total cost of the item is " << totalCost << endl;

}

else

{

cout << "A positive value is required ";

}

return 0;

}

double calculateRetail(double wholeSale, double markUp)

{

return (wholeSale \* (markUp/100) + wholeSale);

}

// TenValueArray

/\* Program will allow user to enter 10 integervalues into array.

The program will display the maximum and minimum numbers stored

in array.\*/

// Created by ANDRIS PINKHASIK on 11/13/14.

// Copyright (c) 2014 Dre's Bay. All rights reserved.

#include <iostream>

using namespace std;

int main()

{

const int integers = 10;

int Ten[integers];

int maximum , minimum;

cout << "It will prompt you to enter values into array. \n";

for (int i = 0;i < 10;i++)

{

cout << "Enter value please: ";

cin >> Ten[i];

}

maximum = Ten[0];

minimum = Ten[0];

for (int i =1; i< 10; i++)

{

if ( minimum > Ten[i])

{

minimum = Ten[i];

}

else if (maximum < Ten[i])

{

maximum = Ten[i];

}

}

cout << "\nThis is the max number: " << maximum << endl;

cout << "This is the min number: " << minimum << endl;

return 0;

}