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Chapter 2

4/2/18

Programming Challenge # 12 Diamond Problem

Code:

// Ch 2 challenge program 12 Diamond pattern

// displays a diamond

#include <iostream>

using namespace std;

int main()

{

cout<< " \* \n"; // draws one star

cout<< " \*\*\* \n"; // draws three stars

cout<< " \*\*\*\*\* \n"; // draws five stars

cout<< "\*\*\*\*\*\*\*\n"; // draws seven stars

cout<< " \*\*\*\*\* \n"; // draws five stars

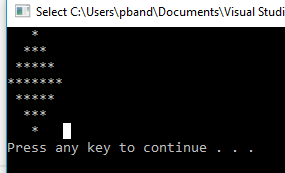
cout<< " \*\*\* \n"; // draws three stars

cout<< " \* \n"; // draws one star

system("pause");

}

Output:



Programming Challenge # 15

Code:

// Ch 2 challenge problem 15 Stock loss

// program to determine total amount lost

#include <iostream>

using namespace std;

int main()

{

// intilize values

double intialBuyingPerStock = 21.77;

int numOfStocks =600;

double soldStockPrice = 16.44;

double total,totalStart,totalEnd;

// calculations

totalStart = (intialBuyingPerStock \* numOfStocks); // total amount of stocks x value at start

totalEnd =( soldStockPrice \* numOfStocks); // total amount of stocks x value at selling

total =totalEnd-totalStart; // subtracting end from start to be positive or negative depending on making or losing money

// output

cout << "Total amount of stocks: " << totalStart << " at " << intialBuyingPerStock << " with " << numOfStocks << " number of stocks";

cout << "Total amount from selling " << totalEnd;

cout << "Difference from start to end value " << total;

system("pause");

}

Output:

Total amount of stocks: 13062 at 21.77 with 600 number of stocks

Total amount from selling 9864

Difference from start to end value -3198Press any key to continue . . .

Program Challenge # 16

Code: //Ch 2 challenge problem 16 energy drink consumption

// calculate number who drink regularly, and number who like citrus

#include <iostream>

using namespace std;

int main()

{

int numInSurvey = 12467; // total number in survey

double regEnergyDrinkers =.14; // number that have 1+ energy drinks a week

double citrus = .64; // number of energy drinkers that like citrus flavors

int numLikeEnergy = numInSurvey\*regEnergyDrinkers; // finds the number of energy drinkers rounded

int numLikeCitrus = numLikeEnergy \* citrus; // finds the number of energy drinkers that like citris

// output

cout<< "number that like energy drinks are " << numLikeEnergy << "\n";

cout<< "number that like citrus energy drinks " << numLikeCitrus<<"\n";

system("pause");

}

Output:

number that like energy drinks are 1745

number that like citrus energy drinks 1116

Press any key to continue . . .

Program Challenge # 14

Code:

// Ch 2 challenge program 14 Basketball player height

// program determines the height of basketball player in feet and inches

#include <iostream>

using namespace std;

int main()

{

int height = 73; // player is 73 inches tall

int feet, inches;

//calculation

feet = height/ 12; // the program drops the decimals and equals the total number of feet

inches = height % 12; // the program drops the feet amount and the remainder is how many inches

// output

cout << "The player is " << feet << " feet total and " << inches << " inches total\n";

system("pause");

}

Output:

The player is 6 feet total and 1 inches total

Press any key to continue . . .