Chris Adkins

Week Two

Pages: 27 - 69

Rev. Questions: 17, 26, 27

17. D2 = d1 + 2;

26. a.

Be careful!
This might/n be a trick question.

b.

23
1

27. Line 2: missing <>
Line 5: bad ; placement
Line 6: backwards curly bracket
Line 7, 8, 9, 10: missing ;
Line 11: cout is capitalized, C outside of “ ” at the end
Line 13: backwards curly bracket

Programming Challenges: 4, 6, 14

```
/*    Chapter No. 2 - Exercise No. 4
      File Name: RestaurantBill.cpp
      Programmer: Chris Adkins
      Date Last Modified: 9/5/2019

      Problem Statement:
      This program takes a meal cost, tax rate, and tip rate and
      calculates the total cost of the meal.

      Overall Plan:
      1. Get initial variables (taxRate, mealCost)
      2. Calculate tax, mealCostWithTax, tip, and totalBill.
      3. output mealCost, tax, tip and totalBill to the user.
*/

#include <iostream>
using namespace std;

int main() {
      double taxRate = 0.0675;
      double mealCost = 44.5;
      double tax = mealCost * taxRate;
      double mealCostWithTax = mealCost + tax;
      double tip = mealCostWithTax * .15;
      double totalBill = mealCostWithTax + tip;

      cout << "Meal Cost: \t$" << mealCost;
      cout << "\nTax Amount: \t$" << tax;
      cout << "\nTip Amount: \t$" << tip;
      cout << "\nTotal Bill: \t$" << totalBill;
}
```

```
/*    Chapter No. 2 - Exercise No. 6
      File Name: DistancePerTank.cpp
      Programmer: Chris Adkins
      Date Last Modified: 9/5/2019

      Problem Statement:
      This program takes a gas tank capacity as well
      as MPGs for city and highway and uses them to
      tell the user how far they can travel in the city
      as well as on the highway.

      Overall Plan:
      1. Multiply tankCapacity by town/highway MPG variables.
      2. Print results to user.
*/

#include <iostream>
using namespace std;

int main() {
      int tankCapacity = 20;
      double townMPG = 23.5;
      double highwayMPG = 28.9;

      cout << "Your car can travel " << tankCapacity * townMPG << " miles in town
and " << tankCapacity * highwayMPG << " miles on the highway.";
}

/*    Chapter No. 2 - Exercise No. 14
      File Name: InchesToHeight.cpp
      Programmer: Chris Adkins
      Date Last Modified: 9/5/2019

      Problem Statement:
      This program takes a number of inches and
      converts them to feet and inches.

      Overall Plan:
      1. Display inches variable / 12 for feet.
      2. Display inches variable % 12 for inches.
*/

#include <iostream>
using namespace std;

int main() {
      int inches = 74;
      cout << inches / 12 << "ft " << inches % 12 << "in";
}
```

Program 4 Output:

```
Meal Cost:      $44.5
Tax Amount:     $3.00375
Tip Amount:     $7.12556
Total Bill:     $54.6293
```

Program 6 Output:

```
Your car can travel 470 miles in town and 578 miles on the highway.
```

Program 14 Output:

```
6ft 2in
```