Sample Midterm Questions
Chapters 1, 2, 3 & 4

MULTIPLE CHOICE

1. The _____ operator always follows the cin object, and the _____ operator follows the cout object.
   a. binary, unary
   b. conditional, binary
   c. >>, <<
   d. <<, >>
   e. None of the above

2. In any program that uses the cin object, you must include the header file __________.
   a) <cmath>
   b) <iomanip>
   c) <cstring>
   d) <iostream>
   e) None of the above

TRUE / FALSE

3. When reading a string, the only difference between using cin and getline function is that getline reads strings that contain spaces and tabs.
   (T) rue ____  (F) alse ____

4. The statement
   
   cout << setprecision(2) << dollars << endl;

   will output 2 digits after the decimal point to the screen.
   (T) rue ____  (F) alse ____
SHORT ANSWER

5. In an if/else if statement, what is the purpose of a trailing else?

6. Why are the relational operators called relational?

FIND THE ERRORS

The following program segment has error(s). Circle the error(s) and then rewrite the statement(s) to correct the error(s).

7. // This program averages 3 test scores.
   // It uses the variable perfectScore as a flag.
   include <iostream>
   using namespace std;

   int main()
   {
      cout << "Enter your 3 test scores and I will ";
      cout << "average them: ";

      int score1, score2, score3,
      cin >>score1 >> score2 >> score3;

      double average;
      average = (score1 + score2 + score3) / 3.0;

      if ( average = 100 );
         perfectScore = true; // Set the flag variable
      else
         perfectScore = false;

      cout << "Your average is " << average << endl;

      bool perfectScore;
      if (perfectScore);
      {
         cout << "Congratulations!\n";
         cout << "That’s a perfect score.\n";
         cout << "You deserve a pat on the back!\n";

         return 0;
      }
   }
PROGRAMMING

8. Write a program that prompts the user for their quarterly water bill for the last four quarters. The program should find and output their average monthly water bill. If the average bill exceeds $75, the output should include a message indicating that too much water is being used. If the average bill is at least $25 but no more than $75, the output should indicate that a typical amount of water is being used. Finally, if the average bill is less than $25, the output should contain a message praising the user for conserving water. Use the sample run below as a model for your output.

Sample Run 1:

Please input your water bill for quarter 1: 300
Please input your water bill for quarter 2: 200
Please input your water bill for quarter 3: 225
Please input your water bill for quarter 4: 275
Your average monthly bill is $83.33. You are using excessive amounts of water

Sample Run 2:

Please input your water bill for quarter 1: 100
Please input your water bill for quarter 2: 150
Please input your water bill for quarter 3: 75
Please input your water bill for quarter 4: 125
Your average monthly bill is $37.50. You are using a typical amount of water