## In class Practice 9/6/2019

Group three or four people team.

For Part I multiple choice questions, do solo first then discuss as a group.

For Part II and part III work as a team

Part I

1. The escape sequence \n represents the _____ character, which causes the cursor to position to the beginning of the next line on the screen. newline
2. All C++ variables must be declared before they're used. True
3. C++ remainder operator (%) can be used only with integer operands. True
4. A C++ program that prints three lines of output must contain three statements using cout and the stream insertion operator. False
5. Declare the variables cPlusPlus, mqf2019 and month_9 to be of type int (in one statement) and initialize each to value 0. True
6. Function ___getline___ from the <string> library reads characters until a newline character is encountered, then copies those characters into the specified string.
7. Any file that uses a class can include the class's header via a(n)__#include__ preprocessing directive.
8. By convention, function names begin with a capital letter and all subsequent words in the name begin with a capital letter. False. function names begin with a lower letter
9. Data members or member functions declared with access specifier private are accessible to member functions of the class in which they're declared. True
10. Every function's body is delimited by left and right braces ({ and }). True
11. (Using a Class Without a using Directive) Explain how a program could use class string without inserting a using directive.

add an std in front of string, for example:
std::string x = "hello world";

Part II

1. Correct the errors of the following statements

a) if (n < 8); { cout << "n is less than 8\n"; }

b) if (n => 8) { cout << "n is equal to or greater than 8\n"; }

2 Correct the errors of the following program

```
// average.cpp
// This program finds the average of three numbers.
// It contains errors that must be fixed to run the program.
#include <iostream>
using namespace std;

int main ()
{
        int size = 0;          // The number of values to be averaged
  double num1,
       num2,
          num3
       average;         // Average of num1 and num2

  // Get the three numbers
  cout << "Enter three numbers separated by one or more spaces: ";
  cin  >> num1 >> num2 >> num3;

  // Calculate the average
        average = num1 + num2 + num3 / size;

        // Display the average
  cout << "The average of these three numbers is: " << average << endl;

  return 0;
}
```

if (n < 8){
cout << "n is less than 8\n";
}

if(n >= 10){
cout << "n is equal to or greater than 8\n";
}

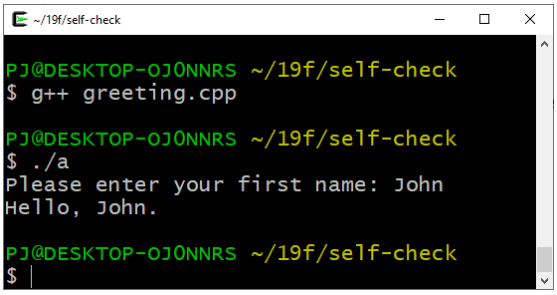
int size = 3

num3,

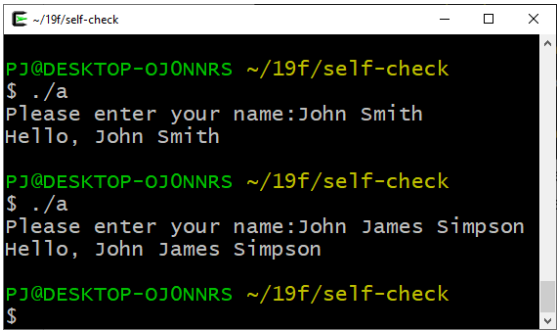
average = (num1+num2+num3)/size;

Part III

1. Write a C++ program that ask user's first name then output greeting message like the following




2. Can you write a C++ program that will take not just the first name but full name and then output greeting message?




3. Write an Invoice class. Invoice constructor initializes the class's four data members

   partNumber // the number of the part being sold
   partDescription // description of the part being sold
   quantity // how many of the items are being sold
   pricePerItem // price per item

   There is a constructor which takes four parameters which are corresponding to the four data members defined above.

   There are four getters and four setters
   setPartNumber(std::string number),
   getPartNumber(),
   setPartDescription(std::string description),
   getPartDescription(),
   setQuantity(int count), if count less than zero then quantity will be set to zero.
   getQuantity(),
   setPricePerItem(int price), if price < 0 then PricePerItem sell be set to zero
   getPricePerItem(),

   There is another function getInvoiceAmount() which will calculates invoice amount by multiplying quantity x price per item