Exercise #2 (No computers needed)
Due Friday, 9 Oct, at 11:59pm
Before you can come to a study session, you MUST review the Exercise first.

(5 pts) Pointer Review

Each of the following declarations and program segments has errors. Locate as many as you can in A-M, and describe why it is an error.

A) int ptr*;
B) int x, *ptr;
   &x = ptr;
C) int x, *ptr;
   *ptr = &x;
D) int x, *ptr;
   ptr = &x;
   ptr = 100; // Store 100 in x
   cout << x << endl;
E) int numbers[] = {10, 20, 30, 40, 50};
   cout << "The third element in the array is ";
   cout << *numbers + 3 << endl;
F) int values[20], *iptr;
   iptr = values;
   iptr *= 2;
G) double level;
   int dPtr = &level;
H) int *iptr = &ivalue;
   int ivalue;
I) int *pint;
   new pint;
J) void doubleVal(int val) {
   *val *= 2;
}
K) int *pint;
pint = new int;
pint = 100;
L) int *pint;
pint = new int[100]; // Allocate memory
...
//Process the array
...
delete pint; // Free memory
M) int *getNum()
{
    int wholeNum;
    cout << "Enter a number: ";
    cin >> wholeNum;
    return &wholeNum;
}

(5 pts) Structure/Classes Review
Each of the following declarations, programs, and program segments has errors. Locate as many errors as you can, in each.

1. struct Values
{
    string name;
    int age;
}
2. struct TwoVals
{
    int a, b;
};
int main()
{
    TwoVals.a = 10;
    TwoVals.b = 20;
    return 0;
3. class Circle:
{
    private
    double centerX;
    double centerY;
    double radius;
    public
    setCenter(double, double);
    setRadius(double);
}
4. #include <iostream>
using namespace std;
class DumBell;
{
    int weight;
    public:
    void setWeight(int);
};
void setWeight(int w)
{ weight = w; }

int main()
{
    DumBell bar;
    DumBell.setWeight(200);
    cout << "The weight is " << bar.weight << endl;
    return 0;
}