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/* Lab1A.cpp */
#include <iostream>
#include <string>

using namespace std;

struct object {
    string* s;
};

int main() {
    object A, B;
    A.s = new string;
    B.s = new string;
    *A.s = "Hello World"; // A has "Hello World"
    *B.s = *A.s; // B has "Hello World"
    *A.s = "Goodbye"; // A has "Goodbye"

    cout << *A.s << endl;
    cout << *B.s << endl;

    return 0;
}

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/* Lab1B.cpp */
#include <iostream>

using namespace std;

int main() {
    int score[10];
    for (int i=0; i < 10; i++) {
        score[i]=3*i;
        cout << score[i];
    }

    return 0;
}

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/*Lab1C.cpp*/
#include <iostream>

using namespace std;
const double PI = 3.14159265359;
void GetRadius(double&);
void ShowResults(double, double, double);

int main() {
    cout << "Program computes surface area and "
         << "volume of a sphere.\n";

    double radius, // radius of sphere
           surfaceArea = 0, // its surface area
           volume = 0; // its volume
    GetRadius(radius);
    surfaceArea = 4.0 * PI * radius * radius;
    volume = surfaceArea * radius / 3.0;
    ShowResults(radius, surfaceArea, volume);

    return 0;
}

void GetRadius(double& rad) {
    cout << "Enter radius of sphere: ";
    cin >> rad;
}

void ShowResults(double rad, double area, double vol) {
    cout << "Radius of sphere is " << rad << " inches\n";
    cout << "Its surface area is " << area
         << "sq. inches\n" << "Its volume is " << vol
         << " cubic inches.\n\n";
}

```

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PROBLEM 1:

Object B was initially made to point to whatever A was pointing to, which meant that if you changed A, you changed B. We decided to change this so that B would point to its own memory location that had the same value as A's. We also had to declare B as a new string, similar to A.

PROBLEM 2:

The loop syntax was outside the bounds of the array. The problem was that i started at 1 and ended at 10, even though the indexes of the array went from 0 to 9. So we changed it to (i=0; i < 10; i++).

PROBLEM 3:

We had to declare the surface area formula before the volume one because the volume formula uses the value of the surface area to compute its own value.