/\* 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;

}

/\* 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;

}

/\*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.