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Assignment: HW2

This program asks the user to input a diameter and then calculates

the volume. After doing this, it adds 1 to the diameter and tells

the user the increase of volume twice.

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Prompt for diameter and read user input

volume1 = π × diameter × diameter × diameter / 6

diameter++

volume2 = π × diameter × diameter × diameter / 6

growth = volume2 - volume1

Print growth

diameter++

volume3 = π × diameter × diameter × diameter / 6

growth = volume3 - volume2

Print growth

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#include <iostream>

using namespace std;

int main() {

const double PI = 3.141592653589793;

cout << "Diameter: ";

int diameter = 0;

cin >> diameter;

int volume1 = 0;

int volume2 = 0;

int volume3 = 0;

int growth = 0;

volume1 = PI \* diameter \* diameter \* diameter / 6;

diameter++;

volume2 = PI \* diameter \* diameter \* diameter / 6;

growth = volume2 - volume1;

cout << "Increase: " << growth << endl;

diameter++;

volume3 = PI \* diameter \* diameter \* diameter / 6;

growth = volume3 - volume2;

cout << "Increase: " << growth << endl;

return 0;

}