**Instructions**

The statements in the file *main.cpp* are in incorrect order.

Rearrange the statements so that they prompt the user to input:

* The shape type (rectangle, circle, or cylinder)
* The appropriate dimension of the shape.

Note: For grading purposes place the cylinder height statement before the radius statement.

The program then outputs the following information about the shape:

* For a rectangle, it outputs the area and perimeter
* For a circle, it outputs the area and circumference
* For a cylinder, it outputs the volume and surface area.

Use **3.1416** as the constant value for any calculations that may need \pi*π*.

After rearranging the statements, your program should be properly indented.

This is what the checks look for:

**0.00**

**out of**

**10.00**

Correct output for test cases

**3**

0 out of 3 checks passed. Review the results below for more details.

Checks

Test CaseIncomplete

Rectangle test case 1

Input

rectangle

60

33

Output

Results

**1980.00**

**186.00**

Show Details

Test CaseIncomplete

Circle test case 1

Input

circle

55

Output

Results

**9503.34**

**345.58**

Show Details

Test CaseIncomplete

Cylinder test case 1

Input

cylinder

90

3

Output

Results

**2544.70**

**1753.01**

Show Details

Run ChecksSubmit 0%

**Here is the code that is given to start with:**

using namespace std;

#include <iostream>

int main()

{

    string shape;

    double height;

    #include <string>

    cout << "Enter the shape type: (rectangle, circle, cylinder) ";

    cin >> shape;

    cout << endl;

    if (shape == "rectangle")

    {

        cout << "Area of the circle = "

             << PI \* pow(radius, 2.0) << endl;

        cout << "Circumference of the circle: "

             << 2 \* PI \* radius << endl;

        cout << "Enter the height of the cylinder: ";

        cin >> height;

        cout << endl;

        cout << "Enter the width of the rectangle: ";

        cin >> width;

        cout << endl;

        cout << "Perimeter of the rectangle = "

             << 2 \* (length + width) << endl;

        double width;

    }

    cout << "Surface area of the cylinder: "

         << 2 \* PI \* radius \* height + 2 \* PI \* pow(radius, 2.0)

         << endl;

    }

    else if (shape == "circle")

    {

        cout << "Enter the radius of the circle: ";

        cin >> radius;

        cout << endl;

        cout << "Volume of the cylinder = "

             << PI \* pow(radius, 2.0)\* height << endl;

        double length;

    }

    return 0;

    else if (shape == "cylinder")

    {

        double radius;

        cout << "Enter the length of the rectangle: ";

        cin >> length;

        cout << endl;

        #include <iomanip>

        cout << "Enter the radius of the base of the cylinder: ";

        cin >> radius;

        cout << endl;

        const double PI = 3.1416;

        cout << "Area of the rectangle = "

             << length \* width << endl;

    else

        cout << "The program does not handle " << shape << endl;

        cout << fixed << showpoint << setprecision(2);

   #include <cmath>

}