

/*Mochire Boaz Momanyi

C++ code that calculates volume and
surface area of a cylinder

BSE-05-0005/2024

18 june 2025

Version 2*/

```
#include <iostream>
```

```
using namespace std;
```

```
class Cylinder {
```

```
public:
```

```
    double radius;
```

```
    double height;
```

```
    const double pi = 3.14159; // Define pi  
value
```

```
    double calculateSurfaceArea() {
```

```
        return (2 * pi * radius * height) + (2 * pi  
* radius * radius);  
    }
```

```
double calculateVolume() {  
    return pi * radius * radius * height;  
}  
};  
  
int main() {  
    Cylinder cl;  
    cout << "Enter the radius of the cylinder:  
".  
    ;  
    cin >> cl.radius;  
    cout << "Enter the height of the cylinder:  
".  
    ;  
    cin >> cl.height;  
  
    double surfaceArea =  
cl.calculateSurfaceArea();  
    double volume = cl.calculateVolume();  
  
    cout << "Surface Area: " << surfaceArea  
<< endl;
```

```
cout << "Volume: " << volume << endl;  
return 0;  
}
```