



```
1 def area_of_a_rectangle(length,width):
2     area_of_a_rectangle = length * width
3     return area_of_a_rectangle
4
5 def area_of_a_circle(radius):
6     pi = 3.14
7     circle_area = pi * radius * radius
8     return circle_area
9
10 def area_of_a_triangle(base,height):
11     triangle_area = 0.5 * base * height
12     return triangle_area
13
14 shape=str(input("pick between the shapes rectangle, circle and
    triangle to calc area: "))
15 if shape == "rectangle":
16     length=int(input("enter length "))
17     width=int(input("enter width "))
18     area_of_a_rectangle = length*width
19     print("area of the rectangle:", area_of_a_rectangle)
20
21 elif shape == "circle":
```

pick between the shapes rectangle, circle and triangle to calc area:  
rectangle  
enter length 8  
enter width 4  
area of the rectangle: 32  
  
=== Code Execution Successful ===

```
def area_of_a_rectangle(length,width):
    area_of_a_rectangle = length * width
    return area_of_a_rectangle
```

```
def area_of_a_circle(radius):
    pi = 3.14
    circle_area = pi * radius * radius
    return circle_area
```

```
def area_of_a_triangle(base,height):
    triangle_area = 0.5 * base * height
    return triangle_area
```

```
shape=str(input("pick between the shapes rectangle, circle and triangle to calc area: "))
if shape == "rectangle":
    length=int(input("enter length "))
    width=int(input("enter width "))
    area_of_a_rectangle = length*width
    print("area of the rectangle:", area_of_a_rectangle)
```

```
elif shape == "circle":
    pie = 3.1415
    radius=int(input("enter radius: "))
    area_of_a_circle = pie*radius**2
    print("area of the circle:", area_of_a_circle)
```

```

elif shape == "triangle":
    k = 0.5
    base=int(input("enter base: "))
    height=int(input("enter height: "))
    area_of_a_triangle = (k*base*height)
    print("area of the triangle:", area_of_a_triangle)

else:
    print("Your choice is invalid, kindly enter correct choice: ")

```

The screenshot shows the Programiz C# Online Compiler interface. The code editor on the left contains the following C# code:

```

1 using System;
2
3 class Program
4 {
5     static double AreaOfRectangle(double length, double width)
6     {
7         return length * width;
8     }
9
10    static double AreaOfCircle(double radius)
11    {
12        double pi = 3.14;
13        return pi * radius * radius;
14    }
15
16    static double AreaOfTriangle(double baseLength, double
    height)
17    {
18        return 0.5 * baseLength * height;
19    }
20
21    static void Main()

```

The output window on the right shows the execution results:

```

mono /tmp/s904zbu3XF.exe
Pick between the shapes rectangle, circle and triangle to calculate
area: triangle
Enter base: 8
Enter height: 5
Area of the triangle: 20

=== Code Execution Successful ===

```

```

using System;

class Program
{
    static double AreaOfRectangle(double length, double width)
    {
        return length * width;
    }

    static double AreaOfCircle(double radius)
    {
        double pi = 3.14;
        return pi * radius * radius;
    }
}

```

```

static double AreaOfTriangle(double baseLength, double height)
{
    return 0.5 * baseLength * height;
}

static void Main()
{
    Console.Write("Pick between the shapes rectangle, circle and triangle to calculate area: ");
    string shape = Console.ReadLine().ToLower();

    if (shape == "rectangle")
    {
        Console.Write("Enter length: ");
        double length = Convert.ToDouble(Console.ReadLine());

        Console.Write("Enter width: ");
        double width = Convert.ToDouble(Console.ReadLine());

        double area = AreaOfRectangle(length, width);
        Console.WriteLine("Area of the rectangle: " + area);
    }
    else if (shape == "circle")
    {
        Console.Write("Enter radius: ");
        double radius = Convert.ToDouble(Console.ReadLine());

        double area = AreaOfCircle(radius);
        Console.WriteLine("Area of the circle: " + area);
    }
    else if (shape == "triangle")
    {
        Console.Write("Enter base: ");
        double baseLength = Convert.ToDouble(Console.ReadLine());

        Console.Write("Enter height: ");
        double height = Convert.ToDouble(Console.ReadLine());

        double area = AreaOfTriangle(baseLength, height);
        Console.WriteLine("Area of the triangle: " + area);
    }
    else
    {
        Console.WriteLine("Your choice is invalid, kindly enter correct choice.");
    }
}

```

```

    }
}

```

The screenshot shows the Programiz C++ Online Compiler interface. The left pane displays the source code in `main.cpp`, and the right pane shows the output of the program.

```

1  #include <iostream>
2  #include <cmath>
3
4  using namespace std;
5
6  double areaOfRectangle(double length, double width) {
7      return length * width;
8  }
9
10 double areaOfCircle(double radius) {
11     const double PI = 3.1415;
12     return PI * radius * radius;
13 }
14
15 double areaOfTriangle(double base, double height) {
16     return 0.5 * base * height;
17 }
18
19 int main() {
20     string shape;
21     cout << "Pick between the shapes rectangle, circle, and
        triangle to calculate area: ";

```

The output pane shows the following text:

```

/tmp/4y3Zr2qV63.o
Pick between the shapes rectangle, circle, and triangle to calculate area:
: circle
Enter radius: 7
Area of the circle: 153.934

=== Code Execution Successful ===

```

```
#include <iostream>
```

```
#include <cmath>
```

```
using namespace std;
```

```
double areaOfRectangle(double length, double width) {
    return length * width;
}
```

```
double areaOfCircle(double radius) {
    const double PI = 3.1415;
    return PI * radius * radius;
}
```

```
double areaOfTriangle(double base, double height) {
    return 0.5 * base * height;
}
```

```
int main() {
    string shape;
    cout << "Pick between the shapes rectangle, circle, and triangle to calculate area: ";

```

```
cin >> shape;

if (shape == "rectangle") {
    double length, width;
    cout << "Enter length: ";
    cin >> length;
    cout << "Enter width: ";
    cin >> width;
    double area = areaOfRectangle(length, width);
    cout << "Area of the rectangle: " << area << endl;
} else if (shape == "circle") {
    double radius;
    cout << "Enter radius: ";
    cin >> radius;
    double area = areaOfCircle(radius);
    cout << "Area of the circle: " << area << endl;
} else if (shape == "triangle") {
    double base, height;
    cout << "Enter base: ";
    cin >> base;
    cout << "Enter height: ";
    cin >> height;
    double area = areaOfTriangle(base, height);
    cout << "Area of the triangle: " << area << endl;
} else {
    cout << "Your choice is invalid, kindly enter a correct choice." << endl;
}

return 0;
}
```