

Exercise: Area Calculator

Start a new console application project for each part of this exercise. We're going to calculate some areas of shapes.

Part 1: Rectangle

In this exercise, we want you to prompt the user for a length and width of a rectangle. Please use the `int` type for length and width and its appropriate `Parse()` method.

When completed, try the following things:

1. Find out what happens if you type in a non-number or nothing instead of providing a whole number?
2. Find out what happens if you type in a decimal value instead of a whole number.

The program execution should look like the following:

```
Enter Length: 5
Enter width: 3

A rectangle with dimensions 5x3 has an area of 15.
```

Remember to make the output look as close to this as possible!

Part 2: Circle

In this exercise, prompt the user for a double type radius value then calculate the area of a circle ($\pi * r^2$). Use a second variable, `area`, to store the calculation instead of outputting it directly into the `WriteLine()` method.

For the value of π , I would like you to explore the `Math` type. Use the dot notation on the `Math` type in the code editor to examine its data and behaviors and find the appropriate one to do this using the documentation.

Also use the `Math` type's appropriate method to perform a power of 2 calculation.

You can also type `Math` into the code editor and hit F1 on it to load the help.

The program execution should look like the following:

```
Enter a radius: 5
A circle with radius 5 has an area of 78.53981633974483.
```