

EXERCISE 03 – METHODS THAT RETURN A VALUE

IMPORTANT: Before submission, make a copy of your **'Program.cs'** file for each question and then rename each file to the following:

File Names:

- *last_name_first name_U5_E03_1.cs*
- *last_name_first name_U5_E03_2.cs*

Note: Along with last name and first name, make sure the end of the filename (i.e., before the .cs) has the **unit number**, **exercise number**, and **question number**. For example:

smith_john_U1_E03_2.cs

1. Implement the following **method definition**:

```
double CalculateArea(double length, double width)
```

The above method should:

- Calculate the area based on the parameters
- Return the area

Ask the user for a **length** and **width**, then **call** the above method using these values as arguments. Display an appropriate message to the screen with the area returned by the method.

2. Implement the following **method definitions**:

```
int GenerateRandomNum(int start, int end)
```

The above method should:

- Generate a random number between **'start'** and **'end'**
- Return the random number

```
int CheckNumberGuess(int randNum, int guess, int start, int end)
```

The above method should:

- Return one of 3 values:
 - **'-1'** if **'guess'** is not in the range of **'start'** and **'end'**
 - **'0'** if **'guess'** does not equal **'randNum'**
 - **'1'** if **'guess'** does equal **'randNum'**

Generate a random number with **GenerateRandomNum()**, then create a while-loop in which will repeatedly ask the user for a **guess** between 1 and 10. After every user guess, **call** **CheckNumberGuess()** to check their guess. If the guess is correct, then break out of the while-loop. Make sure to output an appropriate message after every user guess.