**Problem 1: Guess the Number Game**

Write a C# program for a "Guess the Number" game where the computer selects a random number between a specified range, and the player has to guess the number. Use a do-while loop to repeatedly prompt the player for guesses until they guess correctly.

**Problem 2: Simple Calculator**

Write a C# program that acts as a simple calculator. It should repeatedly prompt the user for two numbers and an operation (addition, subtraction, multiplication, or division) using a while loop. Perform the calculation and display the result.

**Problem 3: Reverse a Number**

Write a C# program that takes an integer as input and reverses its digits. Use a while loop to accomplish this task.

**Problem 4: Factorial Calculation**

Write a C# program that calculates the factorial of a given positive integer using a while loop.

**Problem 5: Collatz Sequence**

Write a C# program that generates and displays the Collatz sequence for a given positive integer. The sequence is generated by repeatedly applying a specific formula to the previous number until the sequence reaches 1. Use a while loop for this task.