# Module 5.4 While Loop: Coding Questions with Hints

## Question 1: Use a while loop to print numbers from 1 to 10.

Hint: Start with a variable at 1 and increment it in each iteration until it reaches 10.

## Question 2: Write a while loop that asks the user for input and prints it, until the user types 'quit'.

Hint: Use a condition to check if the input is not 'quit' to continue the loop.

## Question 3: Create a counter variable and use a while loop to count down from 10 to 1, then print 'Launch!'.

Hint: Decrement the counter in each iteration and check that it's greater than 0.

## Question 4: Implement a while loop to calculate the factorial of a given number.

Hint: Use a loop to multiply the numbers in descending order, starting from the given number until 1.

## Question 5: Use a while loop to print the Fibonacci sequence up to the 10th term.

Hint: Initialize the first two terms outside the loop, then generate the next terms within the loop.

## Question 6: Write a while loop to find the greatest common divisor (GCD) of two numbers.

Hint: Use the Euclidean algorithm, repeatedly subtracting the smaller number from the larger one.

## Question 7: Implement a while loop that doubles a number and prints it, until it exceeds 100.

Hint: Start with a number and double it in each iteration, checking if it has exceeded 100.

## Question 8: Use a while loop to iterate over a string and print each character until you encounter a space.

Hint: Break the loop if the current character is a space.

## Question 9: Create a while loop that simulates rolling a dice until a 6 is rolled.

Hint: Use a random number generation to simulate the dice roll and continue until a 6 appears.

## Question 10: Write a while loop that reverses a given string and prints it.

Hint: Append characters from the end of the string to a new string in each iteration.