# Module 5.5 Loop Controls: Coding Questions with Hints

## Question 1: Write a loop with a break statement to stop the loop after 5 iterations.

Hint: Use a counter variable within the loop and a break statement when the counter reaches 5.

## Question 2: Use a loop and a continue statement to print only odd numbers up to 10.

Hint: Check if a number is odd using the modulus operator; use continue to skip even numbers.

## Question 3: Implement a loop that iterates through a string and uses continue to skip the letter 'a'.

Hint: Use an if statement within the loop to check for 'a' and continue to the next iteration if found.

## Question 4: Create a while loop that breaks out when a user inputs 'exit'.

Hint: Inside the loop, check the user input and break if it matches 'exit'.

## Question 5: Write a for loop that iterates over a list of numbers and ends the loop using break if it finds a number greater than 100.

Hint: Use a break statement within an if condition that checks for numbers greater than 100.

## Question 6: Use a nested loop to find and print the first pair of factors of a given number, then break out of the loop.

Hint: Inside the nested loop, use a break statement within an if condition that checks if the product of the factors equals the given number.

## Question 7: Implement a loop that continuously prompts the user for input until they provide a valid integer, using a try-except block to catch invalid inputs.

Hint: Use an infinite loop with a break statement when a valid integer is successfully converted.

## Question 8: Write a program using a loop with the pass statement as a placeholder for future code, without performing any action.

Hint: The pass statement can be used where syntax requires a statement but no action needs to be performed.

## Question 9: Use a loop to iterate over a list of strings, printing each one except those that are empty or contain only whitespace, using continue.

Hint: Check if a string is empty or whitespace with an if statement and the str.isspace() method, then use continue.

## Question 10: Create a loop that counts down from 10 to 1 and uses continue to skip printing the number 5.

Hint: Within the loop, use an if statement to check for the number 5 and continue to skip it.