**Exercises on loops**

Exercise 1: Print numbers from 1 to 10 using a **for** loop.

Exercise 2: Print even numbers from 2 to 20 using a **for** loop.

Exercise 3: Calculate the sum of numbers from 1 to 100 using a **while** loop.

Exercise 4: Calculate the factorial of a given number using a **for** loop.

Exercise 5: Print the Fibonacci series up to a specified limit using a **while** loop.

Exercise 6: Print a pattern of stars in a right-angled triangle using nested **for** loops.

Exercise 7: Check if a number is prime or not using a **for** loop.

Exercise 8: Print the reverse of a given string using a **for** loop.

Exercise 9: Calculate the sum of even numbers and the sum of odd numbers within a range using a **for** loop.

Exercise 10: Find the factorial of a number using a **do-while** loop.

Exercise 11: Print the first 10 terms of the geometric progression with a common ratio of 2 using a for loop.

Exercise 12: Calculate the sum of the squares of numbers from 1 to 5 using a for-each loop.

Exercise 13: Print a pyramid pattern using nested for loops.

Exercise 14: Calculate the sum of all prime numbers between 1 and 50 using a for loop.

Exercise 15: Print the following pattern using nested for loops:

1

1 2

1 2 3

1 2 3 4

1 2 3 4 5

Exercise 16: Calculate the factorial of a number using a recursive function.

Exercise 17: Print the reverse of a given array of integers using a for loop.

Exercise 18: Calculate the sum of digits of a given number using a while loop.

Exercise 19: Check if a string is a palindrome (reads the same forwards and backwards) using a for loop.

Exercise 20: Find the greatest common divisor (GCD) of two numbers using a while loop.