**1.** Write a Python program to calculate the sum of a list of numbers using recursion.

**2.** Write a Python program to convert an integer to a string in any base using recursion .

**3.** Write a Python program to sum recursion lists using recursion.  
Test Data: [1, 2, [3,4], [5,6]]  
Expected Result: 21

**4.** Write a Python program to get the factorial of a non-negative integer using recursion.

**5.** Write a Python program to solve the Fibonacci sequence using recursion.

**6.** Write a Python program to get the sum of a non-negative integer using recursion.  
Test Data:  
sumDigits(345) -> 12  
sumDigits(45) -> 9

**7.** Write a Python program to calculate the sum of the positive integers of n+(n-2)+(n-4)... (until n-x =< 0) using recursion .  
Test Data:  
sum\_series(6) -> 12  
sum\_series(10) -> 30

**8.** Write a Python program to calculate the sum of harmonic series upto n terms.  
Note: The harmonic sum is the sum of reciprocals of the positive integers.  
Example :  
harmonic series

**9.** Write a Python program to calculate the geometric sum up to 'n' terms.  
Note: In mathematics, a geometric series is a series with a constant ratio between successive terms.

**10.** Write a Python program to calculate the value of 'a' to the power of 'b' using recursion.  
Test Data :  
(power(3,4) -> 81

**11.** Write a Python program to find the greatest common divisor (GCD) of two integers using recursion.