1. Given an array compute sum of numbers recursively.
2. Count number of zeros in an integer.
3. Reverse a number using recursion
4. Reverse a string using recursion
5. Write a recursive function to convert a String into the number it represents. e.g. for input “1231” you should return integer 1231.
6. Given k find the geometric Sum i.e. 1 + 1/2 + 1/4 + 1/8 + ... + 1/(2^k)
7. Given two strings check if one is reverse of the other.
8. Write a program to count all the possible paths from top left to bottom right of a MXN matrix with the constraints that from each cell you can either move only to right or down
9. Remove consecutive duplicates from a string recursively. For example, convert "aabccba" to "abcba".
10. A child is running up a staircase with n steps, and can hop either 1 step, 2 steps or 3 steps at a time. Implement a method to count how many possible ways the child can run up to the stairs.
11. Given a string, compute recursively (no loops) a new string where all appearances of "pi" have been replaced by "3.14".
    a. changePi("xpix") → "x3.14x"
    b. changePi("pipi") → "3.143.14"
    c. changePi("pip") → "3.14p"
12. Find a recursive solution to the towers of hanoi puzzle. You don’t have to write code for this. Read about towers of hanoi on wikipedia.
13. Given a string, compute recursively a new string where all the 'x' chars have been removed.
    a. noX("xaxb") → "ab"
    b. noX("abc") → "abc"
    c. noX("xx") → ""
14. Given a String print all the subsets. e.g. for input = abc you need to print a, b, c, ab, ac, bc, abc using recursion.