

Problems based on Recursion – 5

Assignment Questions



Q1 - Given two numbers x and y find a product using recursion.

(Easy)

Input1: x = 5, y = 2

Output1: 10

Input2: x = 100, y = 5

Output2: 500

Q2 - Given a number n, check whether it's a prime number or not using recursion.

(Easy)

Input1: n = 11

Output1: Yes

Input2: n = 15

Output2: No

Q3 - Given a decimal number as input, we need to write a program to convert the given decimal number into its equivalent binary number.

(Easy)

Input1: 7

Output1: 111

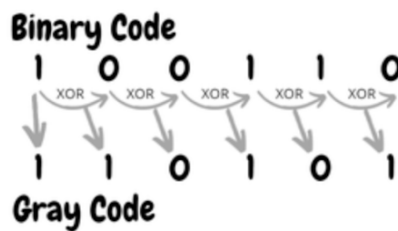
Input2: 10

Output2: 1010

Q4 - Given the Binary code of a number as a decimal number, we need to convert this into its equivalent Gray Code. In gray code, only one bit is changed in 2 consecutive numbers.

(Medium)

Hint: The Most Significant Bit (MSB) of the gray code is always equal to the MSB of the given binary code and other bits of the output gray code can be obtained by XORing binary code bit at that index and previous index.



Input1: 1001

Output1: 1101

Input2: 11

Output2: 10