

# DSA(number system)

## Assignment Questions



**Problem 1: given a number, print its binary representation. [easy]**

**Input 1: number = 5**

**Output 1: 101**

**Input 2: number = 10**

**Output 2: 1010**

**Problem 2: given a number 'n', predict whether it is a power of two or not. [medium]**

**Input 1: n = 15**

**Output 1: False**

**Input 2: n = 32**

**Output 2: True**

**Q3. Problem 1: Given a number. Using bit manipulation, check whether it is odd or even.**

**Input 8, Even**

**3, False**

**Q4. Given a number, count the number of set bits in that number without using an extra space.**

**Note : bit '1' is also known as set bit.**

**Q5. Given an integer array, duplicates are present in it in a way that all duplicates appear an even number of times except one which appears an odd number of times. Find that odd appearing element in linear time and without using any extra memory.**

**For example,**

**Input : arr[] = [4, 3, 6, 2, 6, 4, 2, 3, 4, 3, 3]**

**Output : The odd occurring element is 4.**