Day 2

Data Structures and Algorithm in Java

*Understanding basic maths*

Today I’ve started to learn the basic concepts of maths using java

here are some problems I’ve solved

1. Counting the number of digits in n that evenly divide.
2. Reversing a number
3. Pallindrome
4. HCF/LCM
5. Armstrong Number
6. Sum 1 to n divisors
7. Checking Prime Number.

While studying HCF, to solve it in optimal time complexity , I’ve studied Euclidean Algorithm

It states that,

GCD(N1,N2) = GCD(N1-N2,N2);

further optimization can be done

GCD(a,b) = GCD(a%b,b)

by using this algorithm , the time complexity was reduced from O(n) to O(logn)

# Study Hours: 3½ hrs.