Discrete Structures

* Lecture 4x

_ Division in the Integers:-

and one. ex 13 Numbers which are only divisible by themselves

* Notice that 2 is a prime number.

To test whether A number is prime or Not, we have many ways

1) Divide the number N by every integer from 2 to n-1; if N is not divisible by any of these numbers. Bo N is prime. Ex: we want to check whether 17 is prime or Not, So we divide 17 by the numbers from 2 to be, if it is not divisible by any of them, 80 17 is prime number. I too Long way,

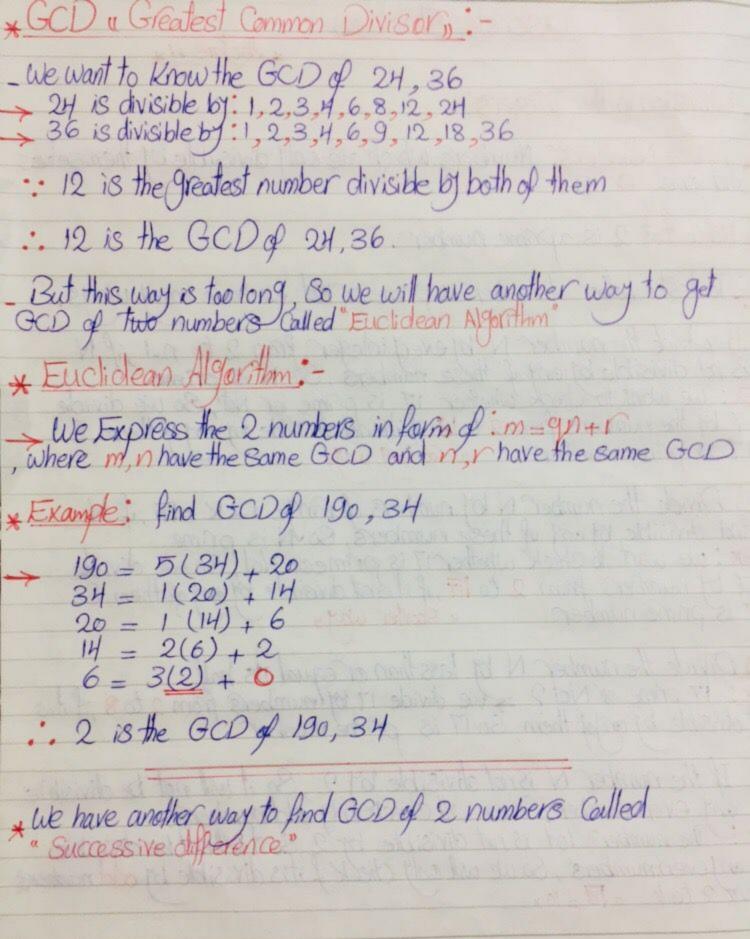
2) Divide the number N by numbers of range 1 < K = IN, if N is not divisible by any of these numbers, So N is prime. Ex: we want to check whether 17 is prime or Not, So we divide 17 by numbers from 2 to 117, if it is not divisible by any of them, So 17 is prime number. "Shorter way."

3) Divide the number N by less than or equal its half.

Ex: 17 prime or Not? I we divide 17 by numbers from 2 to 8, if it is not divisible by any of them, 80 17 is prime number.

If the number N is not divisible by 2, So it will not be divisible by any even number. So we will check only add numbers.

The number 101 is not divisible by 2, so it will not be divisible by any even numbers, so we will only check if it is divisible by add number from 2 to 10 whole lo



* Buccessive Difference:-

Find the GCD of 144, 166

			,
a	Ь	a-b	b-a
144	166		22
144	22	122	
129	2 22	100	
100	22	78	
78	22	56	
56	22	34	
34	22	12	
12	22		10
12	10	2	
2	10		8
2 2	8		6
2	6		4
2 2	H		2
2	2		
	GCD		