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MATHS FOR DSA

(1) Prime number

i/p → n

o/p → is prime or not.

For example:- if n → 10

check whether 10 % i = 0 or not

If 0 then it is not prime

If ~~0~~ then not 0 then prime

(2) Sieve of Eratosthenes

- This method is used to find the number of prime numbers ~~in~~ in the set of numbers
- For Example:- n=40

op:- 12 (number of prime numbers existing between 0 to 40)

(3) HCF / GCD

- HCF stands for highest common factor
- GCD stands for Greatest Common division
- For example find HCF of 24 / 72

2	24
2	12
2	6
3	3
	1

2	72
2	36
2	18
3	9
3	3
	1

24 :- 2 × 2 × 2 × 3

72 :- 2 × 2 × 2 × 3 ×

~~2 × 2 × 2~~ 2 × 2 × 3

= 4 × 6

= 24