On Criven two numbers a and b, find the greatest common divisor of a & b Egrestest common divisor -ged -> hcf -> highest common factor). > Ex > Q = 28 b = 24 ans- 4

$$0 = 28 \rightarrow 2 \times 2 \times 7$$

$$b = 24 \rightarrow 2 \times 2 \times 3$$

what no do??

we want to detect a no. that can divide both a and b. Phere can be multiple sumbers that can divide both a and b. Among those multiple 10. we need to get the biggest 10.

28,24 potential = 24 answer at any no. i -> if (afoi==0 &&
b foi==0) 1) can 2 divide both a & b 289.2 == D && 249.2 == 0 3 divide bose a & 5 28 % 3 == 0 & & 24 % 3 == 0 > false 3) (an 4 divido both a 26 b 28904000 && 27 864000 June

	Pain-	4 90.	7	7,11)		
Notes	1 w:11	Fr Onl	min ans	<u>.</u>		

```
function gcd (a,b) 6

let ans=1;
       for (let i=2; i <= Math.min(a_1b); i++) \ell

if (a_0i)==0 && bf. i==0) \ell
                       ans=i;
```

Euclid's Algo ged - a15 2=14 y 2 & 2 au divisors with 5,6 Say, me divide lo genalis,

$$33 = 5 \times 6 + 3$$

$$Q = b \times 9 \rightarrow 7$$

say, me deur a with b, such that q is the quotient la r is the remainder. $\Rightarrow \int Q = b * q + \delta$ 5/a -b9 = 8] Now, let's say god of a and b is Some 16.

18 the grad of a and b then a lo G == 0 and b 9.6 == 0 In what is by ?? be is a multiple of bif G divides b (bdoG==0) => Godivides bg - (bg don = 0)
multiple gr

r is also going to be duesible by a. a is divisible

a -69 <8 anged of a & b a is the ged of a, b, 8

7 28 and 24 8 7 78 90 24 -> 6 whatou is the god of 24 and 6 will be the ged of 78 & 24. -> grd 24 and 6 8 3 249.6 9 3

if x and y

$$g(d(a), b)$$

$$8 = adob$$

$$g(d(b), s)$$

Y2 = 600 V

9.0 (8,82)

$$q = 105$$
 b= 36

$$a = 36$$
 $b = 33$

5 . 3

ged (37, 3) =3

Q = 33

Dr Criven a number 2, Calculate the sum of digits of the no.x. EL > 4136 4+1+3+6) ans - 14

५।३६

if we need the Sum of dig its of the no, we first of all need he extract the digits out of the

4136 do 10 -> 6 if we do 21010 -> we get last digit of the no.

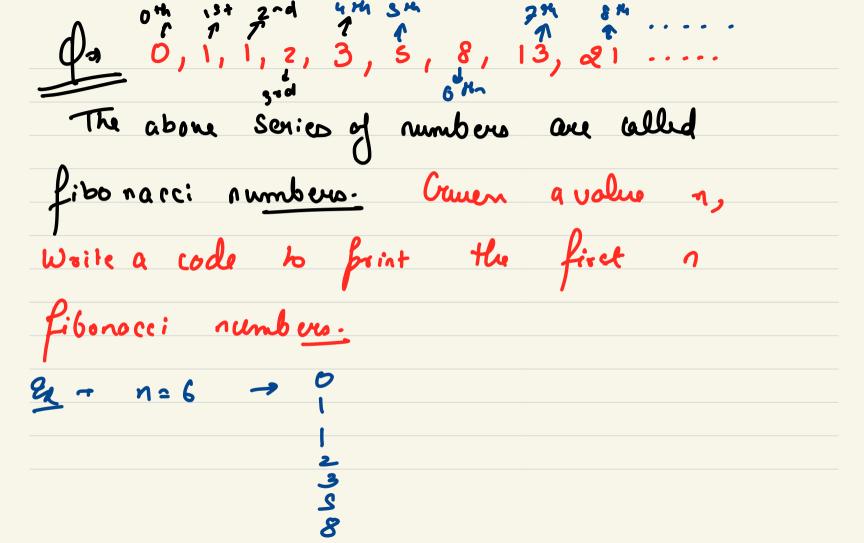
12683 9.10 -> 3 47 4136 90 10 -> 6 Sum = 0 +6 Math.floor(4136 /10)

Math.floor (413.6)

413 by doing Math-floor (x/10) we can chinate flee last digit.

Jum = 0+6+3 u13 4.10 →3 Math. floor (413/10) -> 41 41 9010 -> 1 Mark. f(oor (41/10) -> (4) 4 do 10 -> 4 Math. floor (4/10) -(terminate)

1ct Sum = 0; **ત** = ○ while (x > 0) { Sum = 14 let last Digit = 200 10; Sum t= last Digit; (astligit = 4 x = Math. floor (x/10) > return Sum;



ref = oney time add

& fib no & prist the clement of the prev Second last 2 5 13 reult-Wi can maintain of variables & keep a back of last & 2rd last fib.
We need to respect 1 time.

function print tibonocci (n) &

if (n = = 0) (

console.log (0);

return; if (n >=1) {
(onsole.log (0);

console.log (1); let last = 1; let second lost = 0; for (let i=2; i <= n; i++) let ans = last + second bst; : (2n0) pol. 9102mol : (2n0) = 42016mols last = ams;