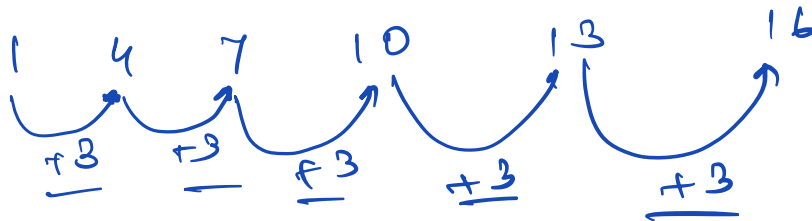
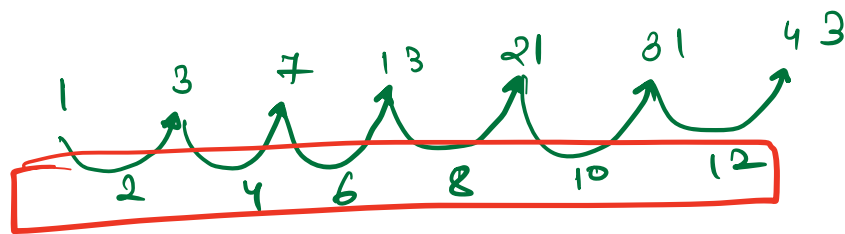


"Hello Everyone!"

Q1:



Q2:



10:12 sharp

```
→ for i in range(3):  
    ↪ for j in range(3):  
        ↪ print(i, j)
```

$i = 0, 1, 2$

↓

$j = 0, 1, 2$

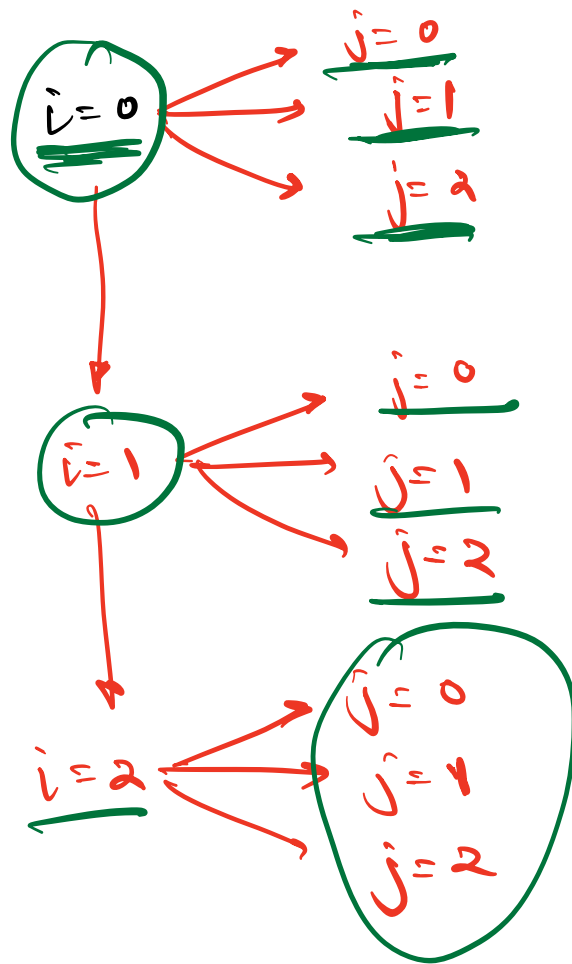
$i = 0 \rightarrow j: [0, 1, 2]$

↓

$i = 1 \rightarrow j: [0, 1, 2]$

↓

$i = 2 \rightarrow j: [0, 1, 2]$



$\text{print}(i, j)$



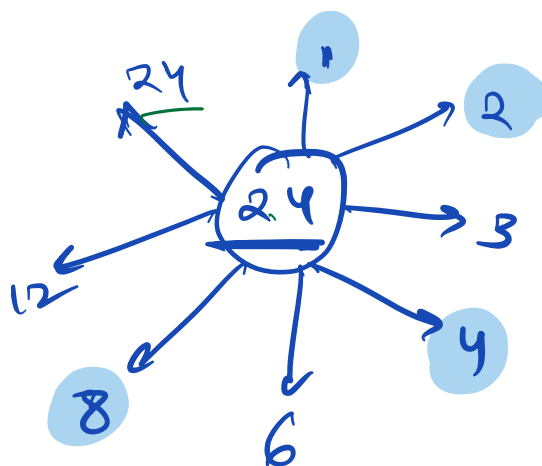
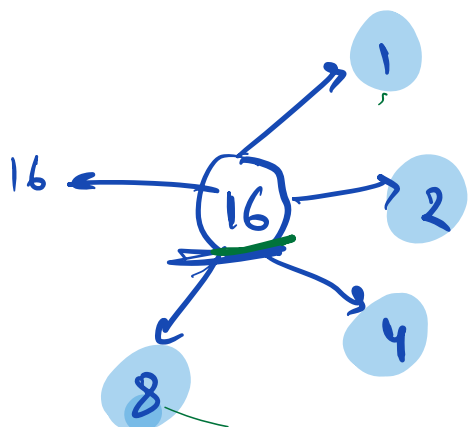
① GCD  $\rightarrow$  ~~Greatest Common Divisor~~  
Highest Common factor  
(HCF)

Divisor:-

Is 5 a divisor of 25?

$$25 \% 5 == 0 \rightarrow \text{True}$$

2 a divisor of 4?  
 $\rightarrow$  True



1, 2, 4, 8

$$\text{GCD}(16, 24) \rightarrow 8$$

Divisor/factor ( $n$ )  $\leq n$

$$\text{GCD}(16, 24) \begin{matrix} \leq 16 \\ \leq 24 \end{matrix}$$

div 16  $\rightarrow \leq 16$

div 24  $\rightarrow \leq 24$

$$\text{GCD}(16, 24) \leq 16$$

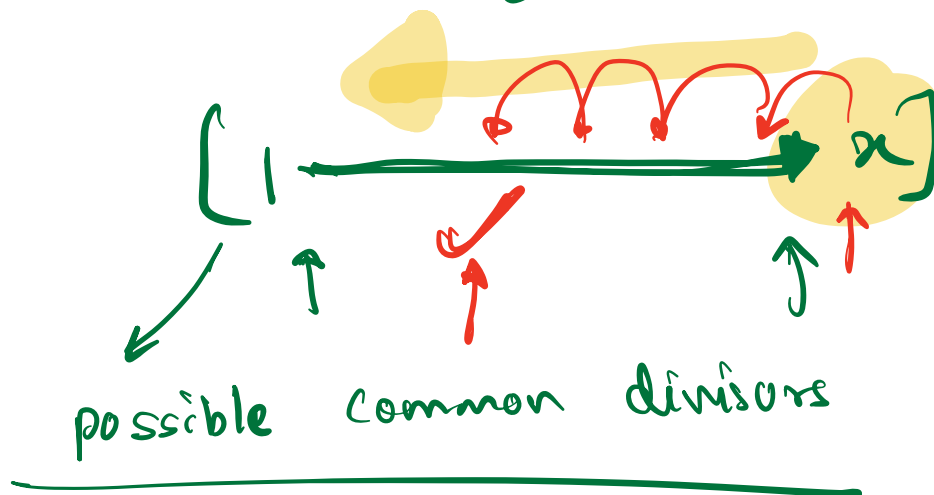
★

$$\text{GCD}(a, b) \leq \min(a, b)$$

How to find GCD of 2 nos  
using Code,

GCD(a, b)

$$n = \min(a, b)$$



Statement :-

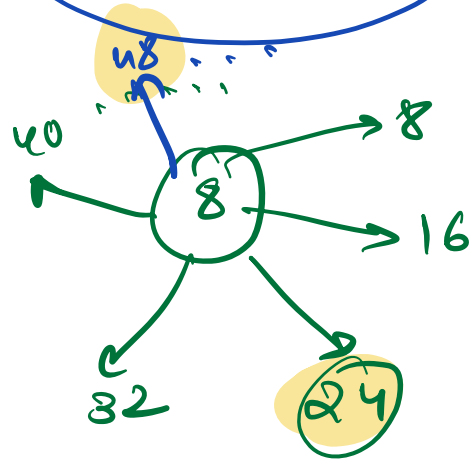
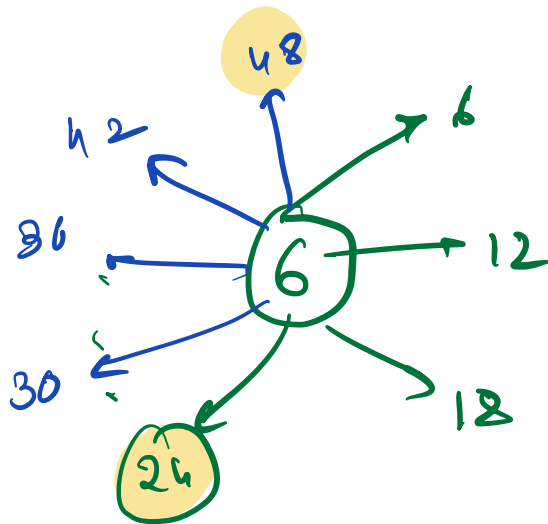
The first value that I get  
from right side which  
divides both (a, b)  
is GCD(a, b)

②

LCM



Least Common Multiple



Common : [ 24, 48, ... ]

$$\text{LCM}(8, 6) = 24$$



$$\text{LCM} \geq a, b$$



$$\text{LCM}(a, b) \geq \max(a, b)$$

$$x = \max(a, b)$$

$$[x \longrightarrow \infty]$$

$$\begin{array}{lcl} a = 6 & \xrightarrow{=} m & \rightarrow 6 \\ b = 8 & \xrightarrow{=} m & \rightarrow 8 \end{array}$$

$$\text{LCM}(6, 8) = 8$$

$n \rightarrow$  mul of both  $a, b$

$\rightarrow a$  and  $b$  should both divide  $n$