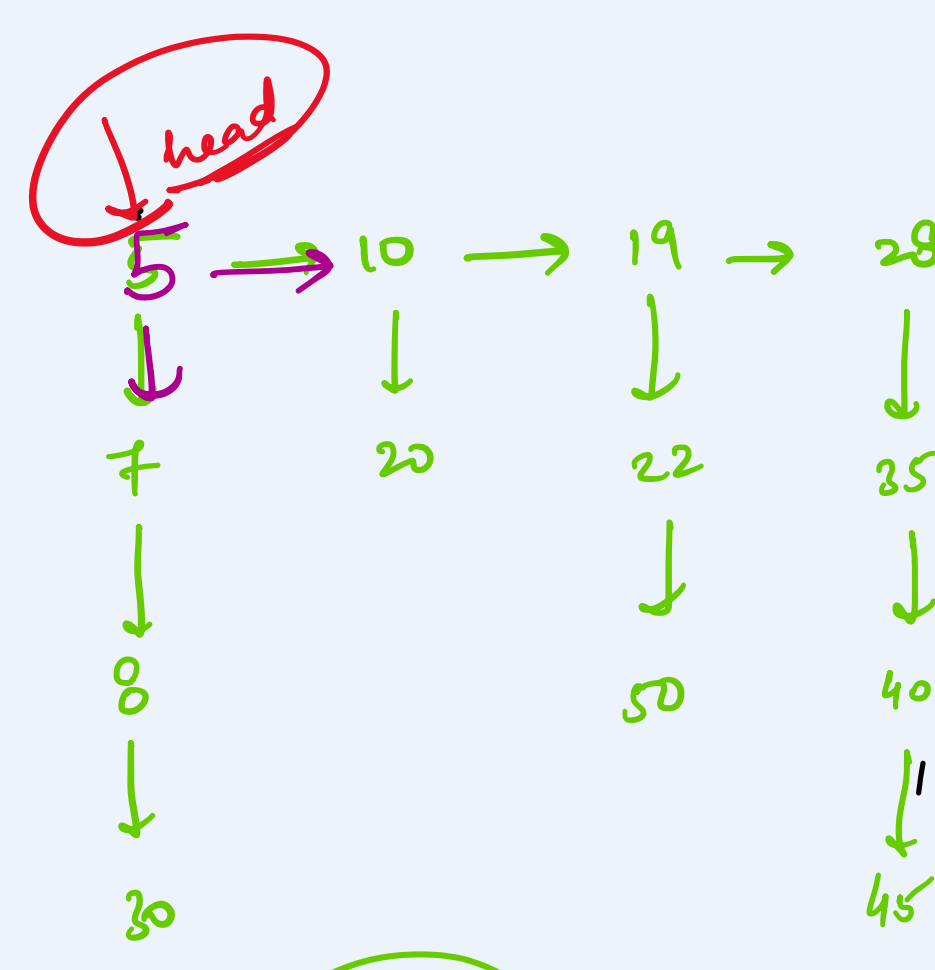
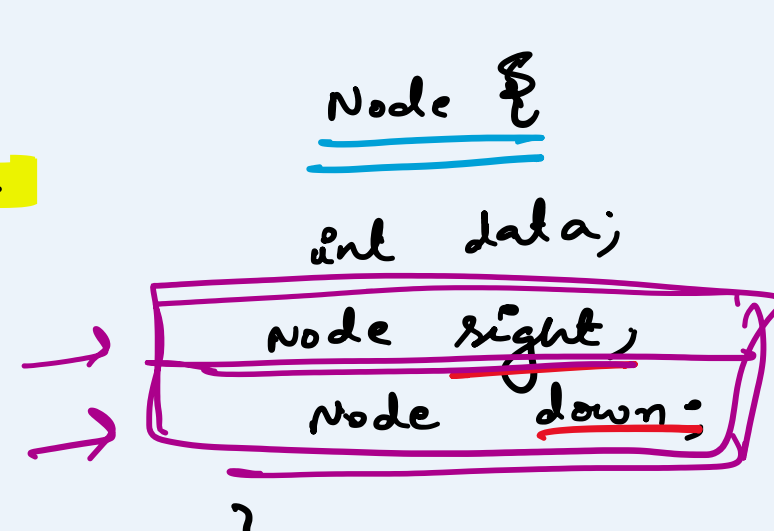


Q. Guen

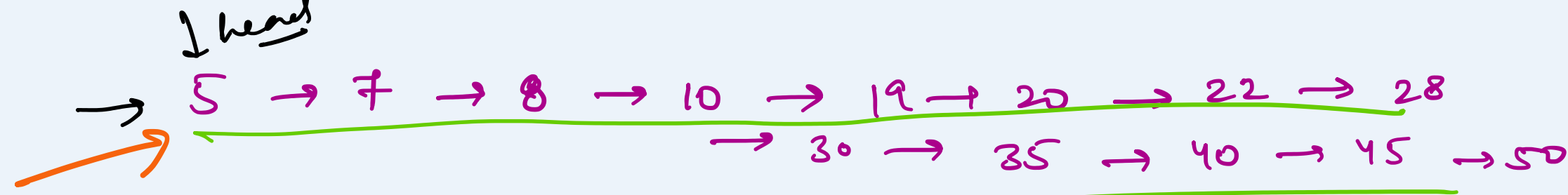
111.

→ all links are sorted

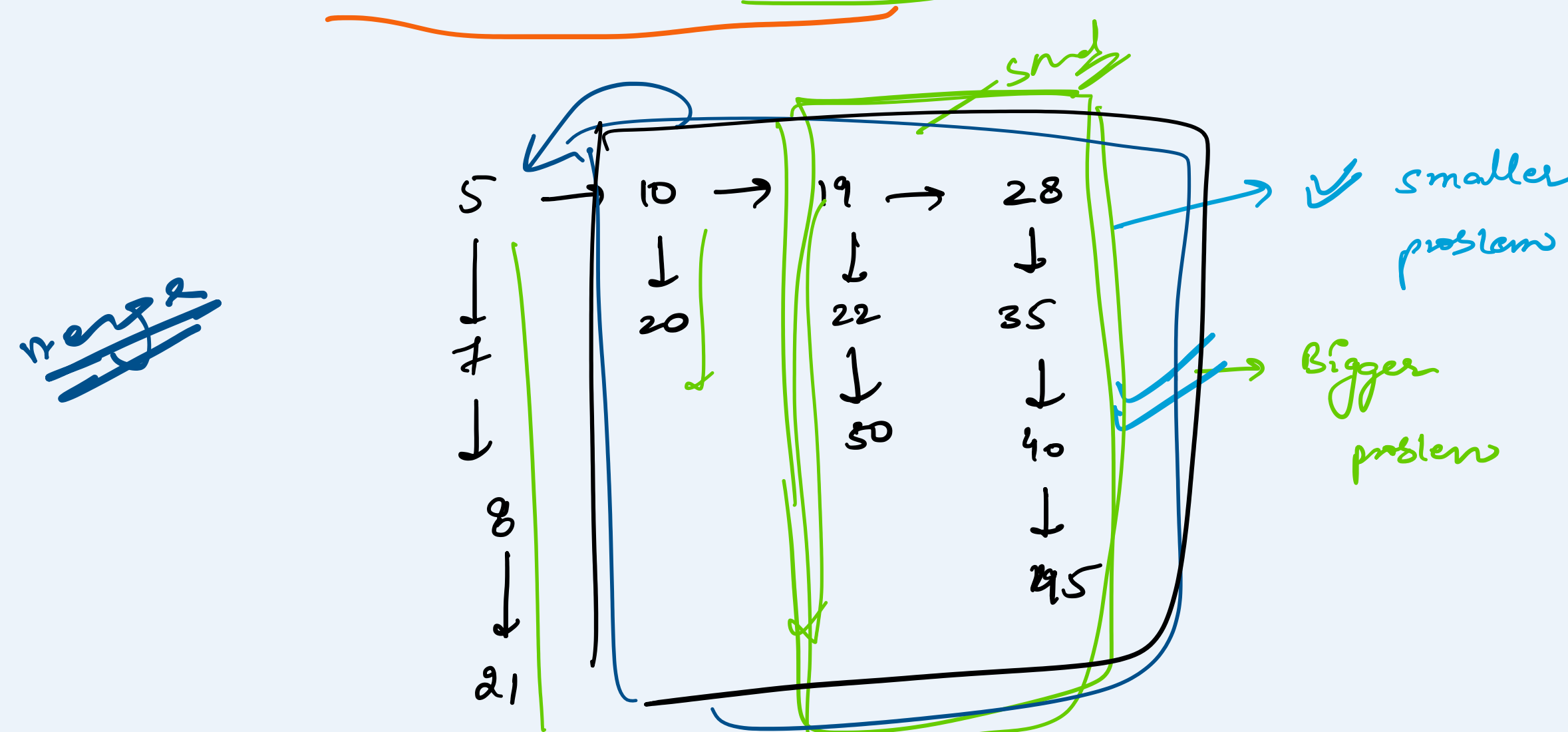


```
flatten(Node head) {
```

flatten this LL.



→ flattened LL is sorted.



Paraphrase

## Rekursiv

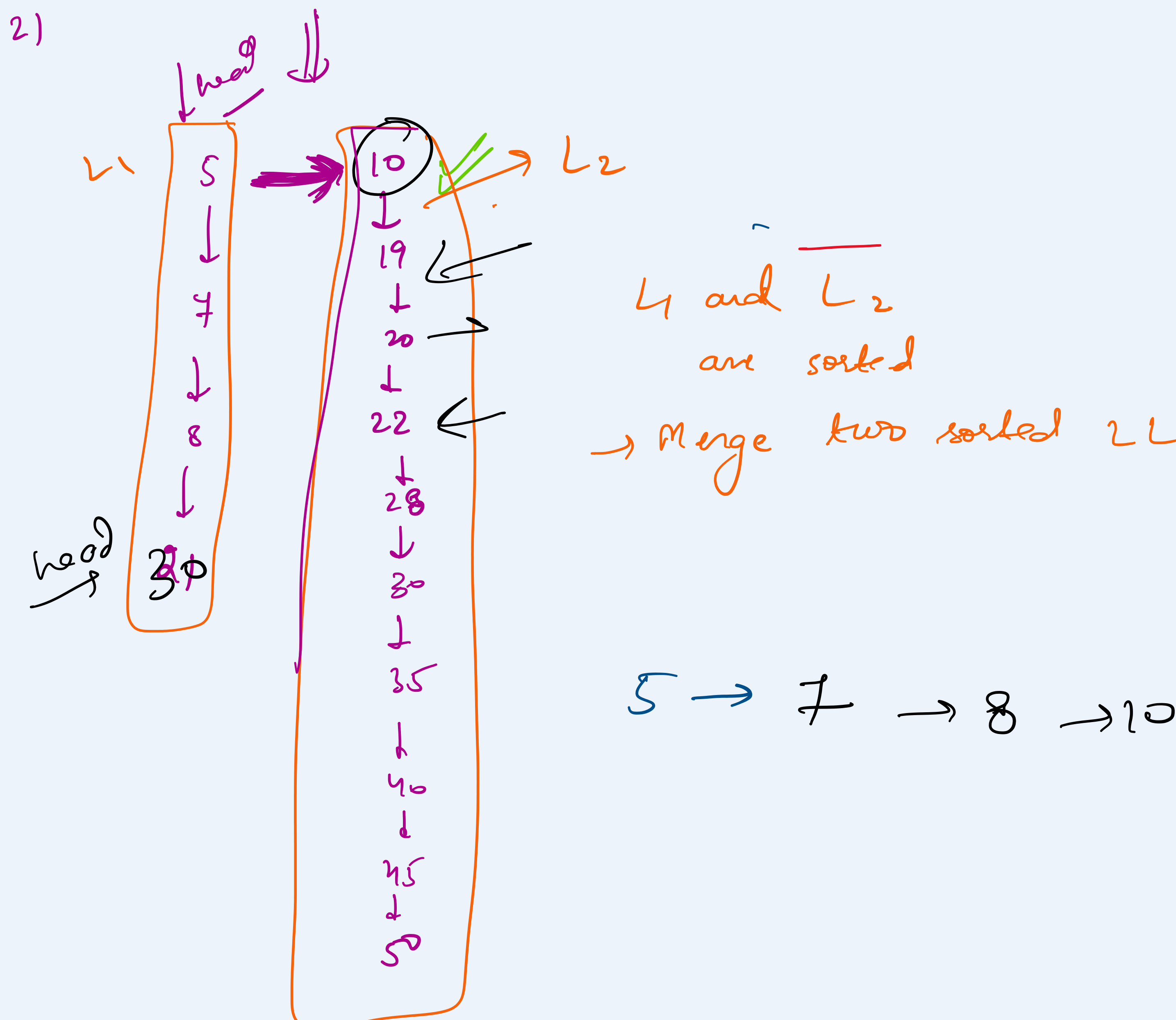
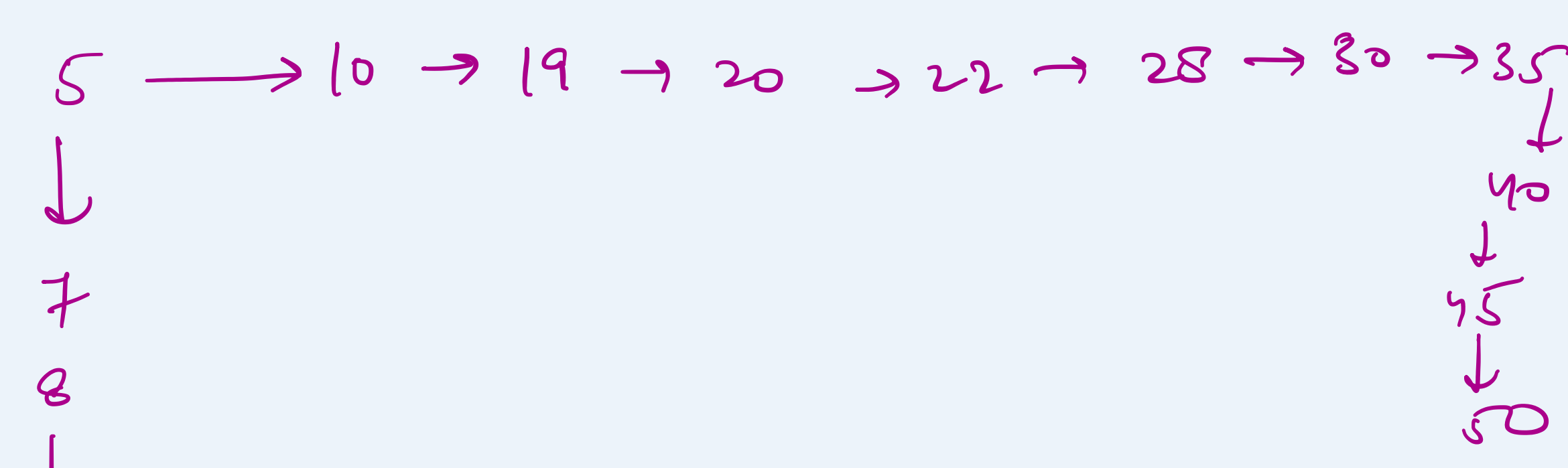
→ Ba

3

✓ 84

At LL =

5 f  $\frac{cc}{empty}$


$$5 \rightarrow 7 \rightarrow 8 \rightarrow 10 \rightarrow 19$$
$$\downarrow$$
$$20$$

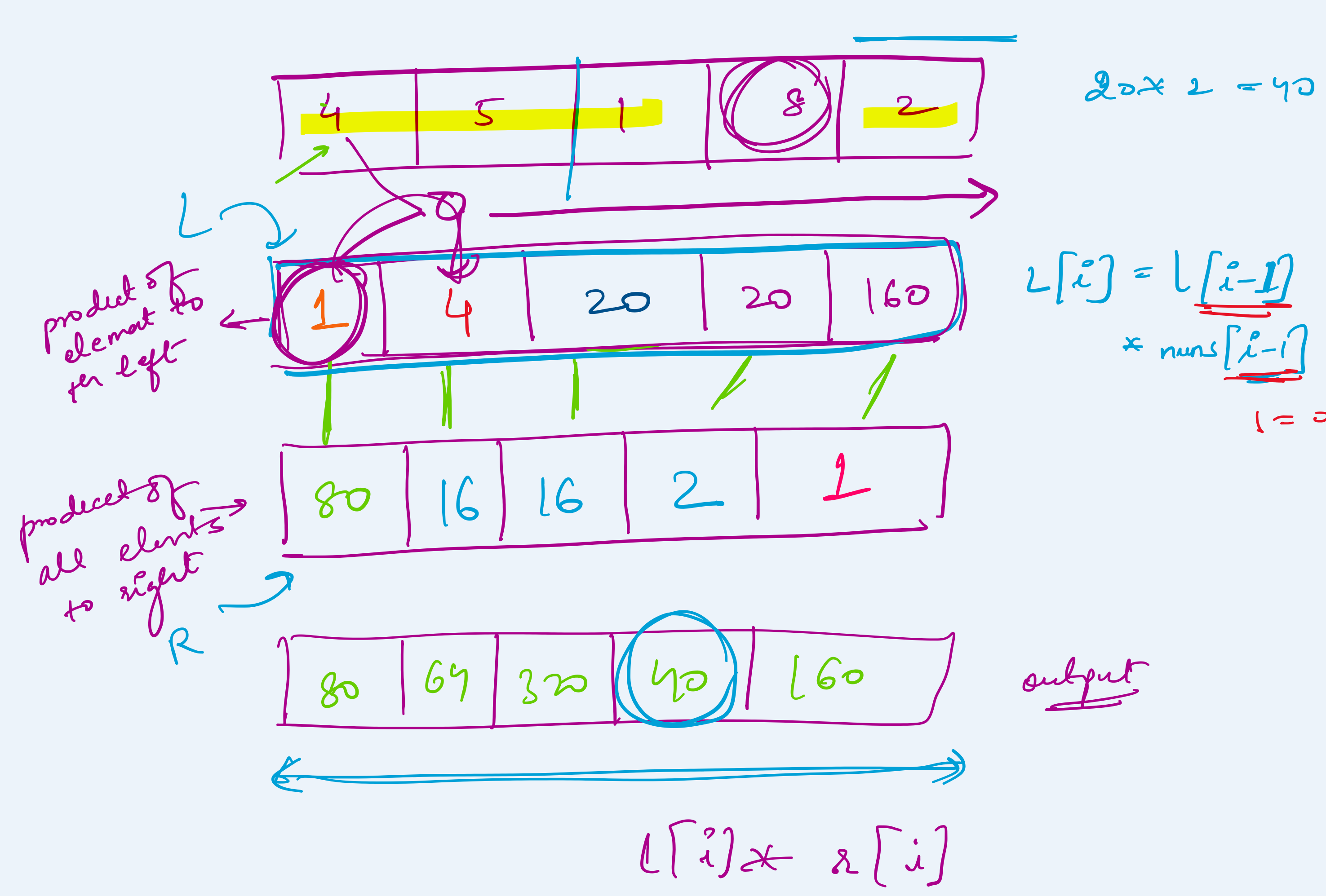
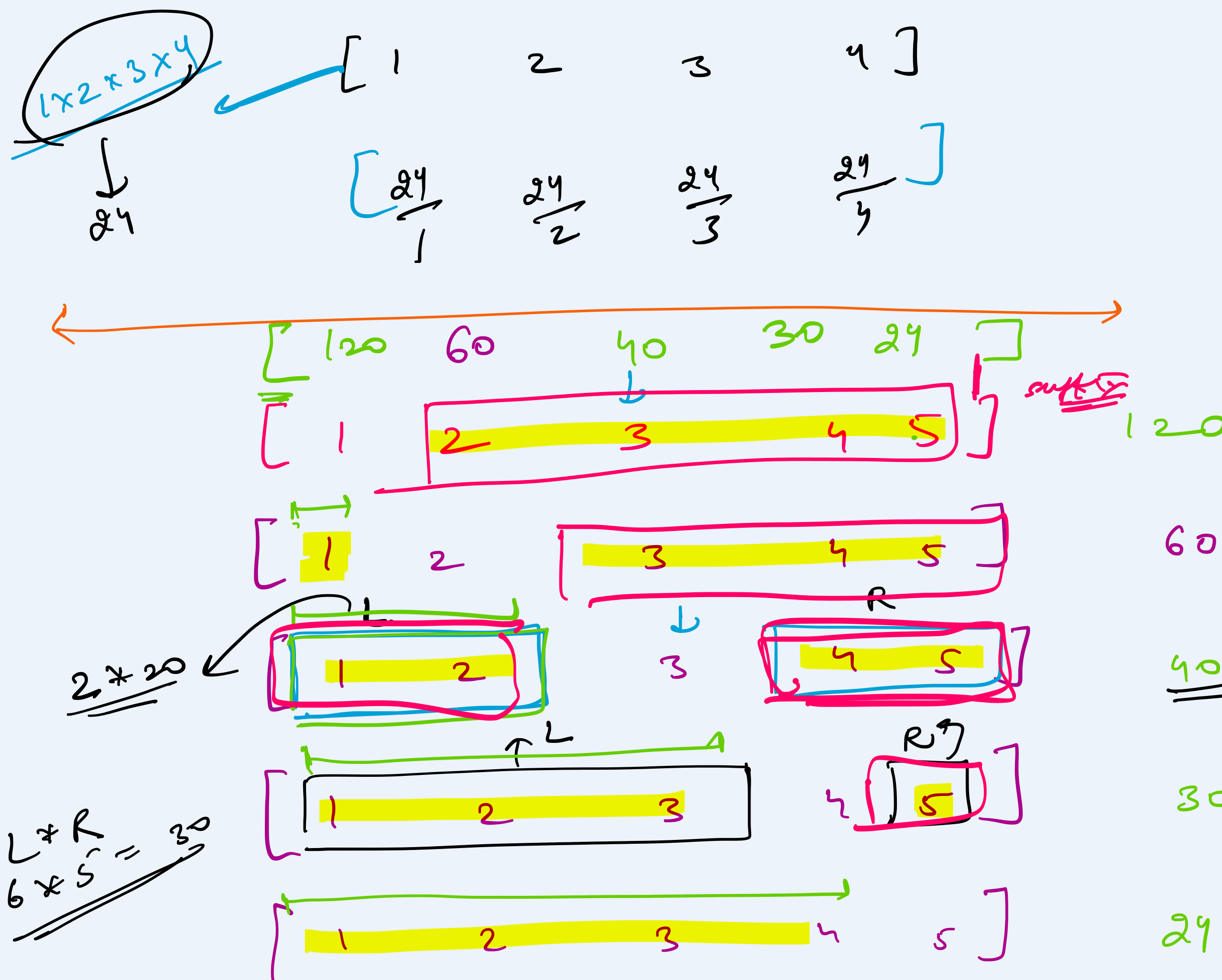
Q Given an integer array nums, return an array such that answer  $[i]$  is equal to the product of all the elements of nums except nums $[i]$

Eg:  $\text{nums} = [1, 2, 3, 4]$   
 $\text{output} = [24, 12, 8, 6]$

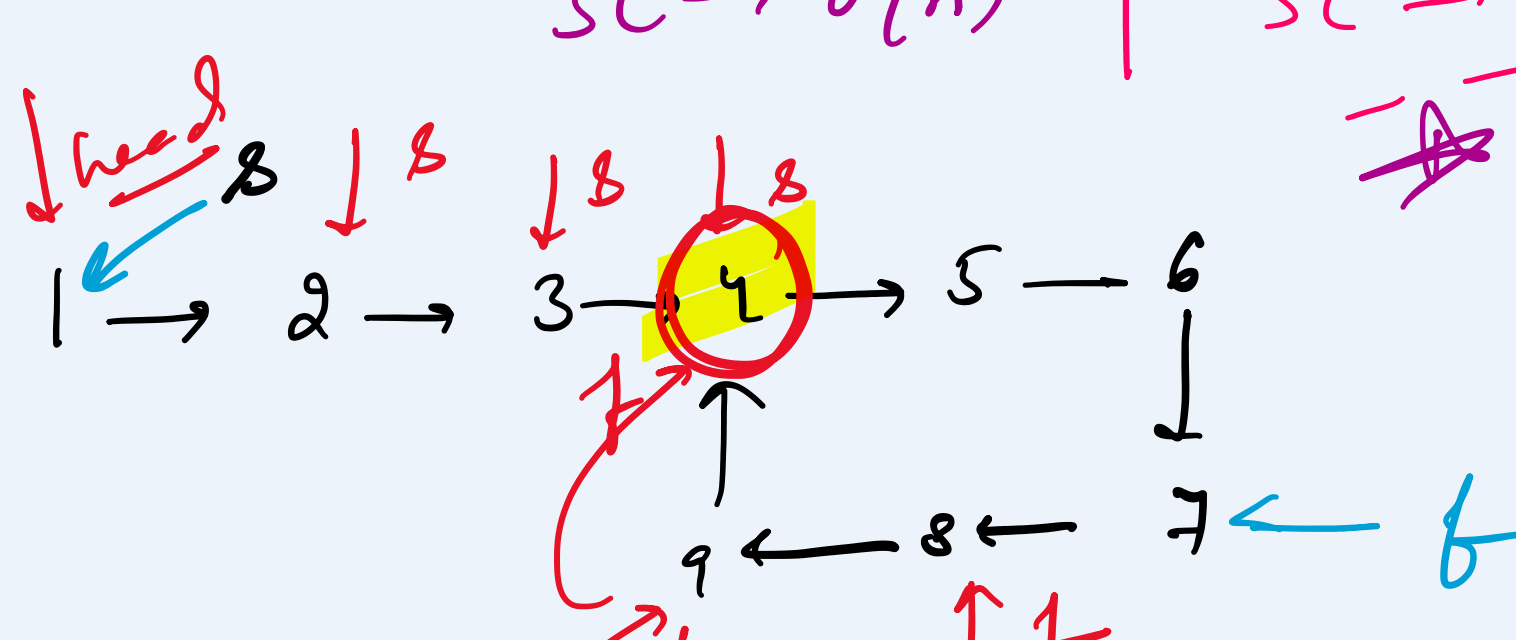
Diagram illustrating the calculation of the output array for  $\text{nums} = [1, 2, 3, 4]$ :

- For  $\text{output}[0] = 24$ :  $2 \times 3 \times 4$
- For  $\text{output}[1] = 12$ :  $1 \times 3 \times 4$
- For  $\text{output}[2] = 8$ :  $1 \times 2 \times 4$
- For  $\text{output}[3] = 6$ :  $1 \times 2 \times 3$

\* division operation here.



$TC \rightarrow O(m)$	$TC \rightarrow O(n)$
$SC \rightarrow O(m)$	$SC \rightarrow O(1)$

$$SC \rightarrow O(n) \quad | \quad SC \rightarrow \underline{O(1)}$$


fast/slow

(0) If there is a cycle (42)

(1) If yes, identify starting point of loop/cycle. (7)

→ Move fast / slow together +1



Distance travelled by [slow] before meeting =  $x + y$

Distance [fast]  $\rightarrow x + y + z + y$   
 $\rightarrow x + 2y + z$

Speed [fast] = 2 \* Speed [slow]

$$S = D_L$$
$$S_g = \frac{D_g}{T}$$
$$S_t = \frac{b}{7}$$

$T_c = T_d$

15 15

$$\frac{V_S}{S_S} =$$
$$D_S = D$$
$$\frac{1}{2} \cdot \frac{1}{2} = \frac{1}{4}$$
$$\Rightarrow D_f = 2$$
$$2x(x+y) = x + 2y + z$$
$$2x + \cancel{2y} = 7 + \cancel{2y} + 3$$
$$k = 2$$