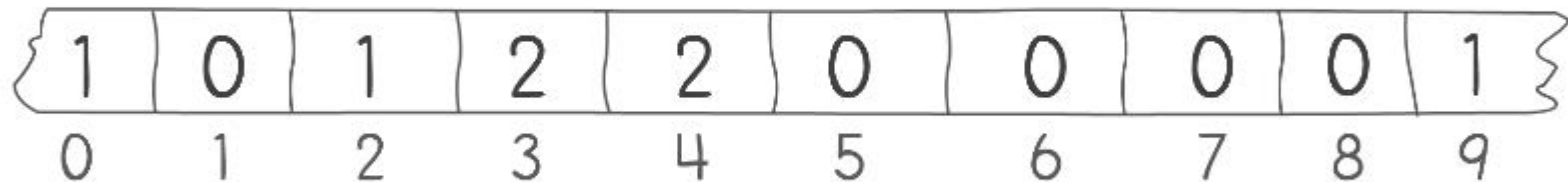




COUNTING ELEMENTS

[0, 9]





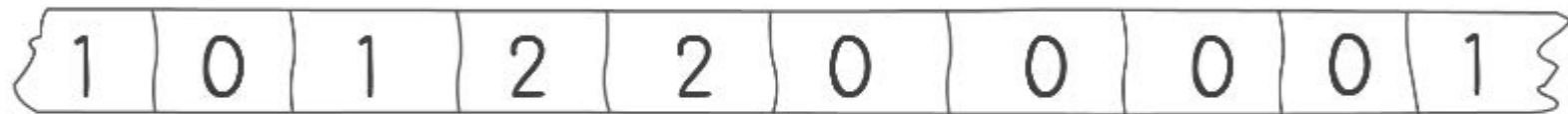
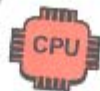
COUNTING ELEMENTS

[0, 9]



N

$O(N)$



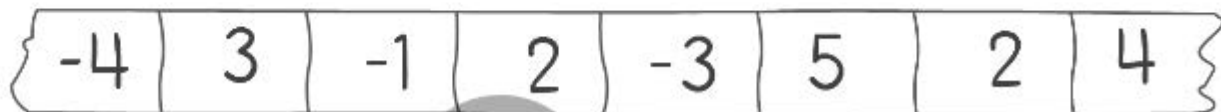
0 1 2 3 4 5 6 7 8 9



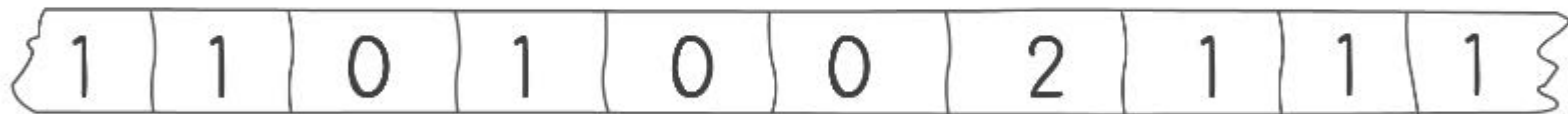
COUNTING ELEMENTS



$[-4, 5]$

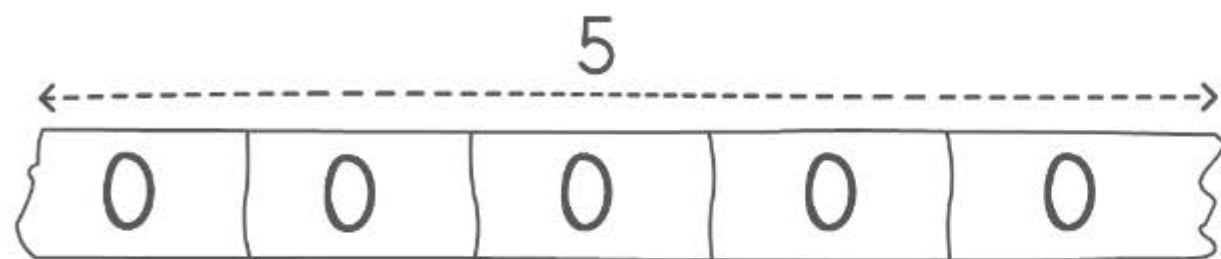


+4



0 1 2 3 4 5 6 7 8 9

~~MAX~~ MAX COUNTERS



[3, 4, 4, 6, 1, 4, 4]

>5

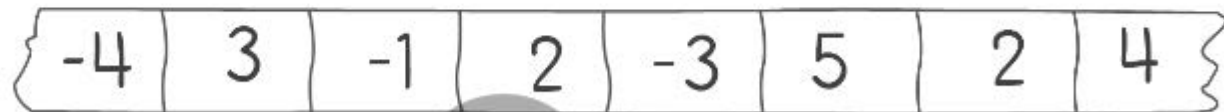
- + increase(3)
- + increase(4)
- + increase(4)
- 🔪 max counter
- + increase(1)
- + increase(4)
- + increase(4)



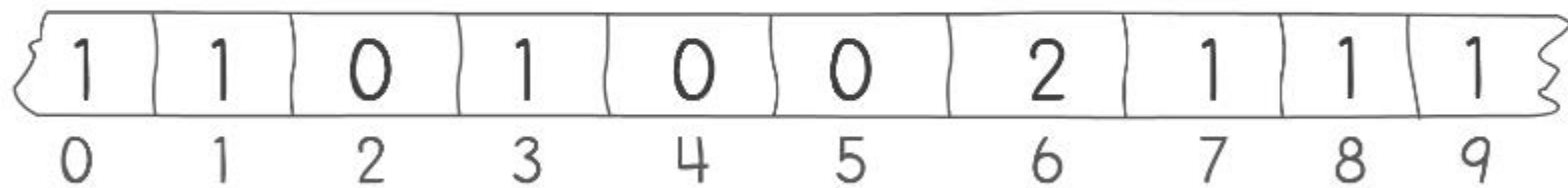
COUNTING ELEMENTS



$[-4, 5]$

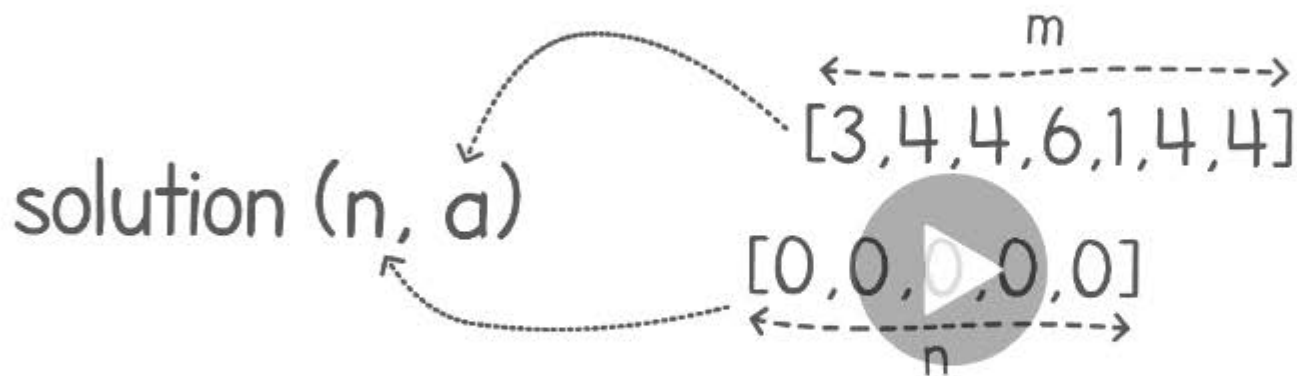


+4



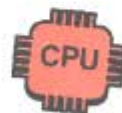


MAX COUNTERS



return [], with counter results

Example: $[3, 2, 2, 4, 2]$



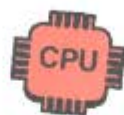
$O(n + m)$



$O(n)$

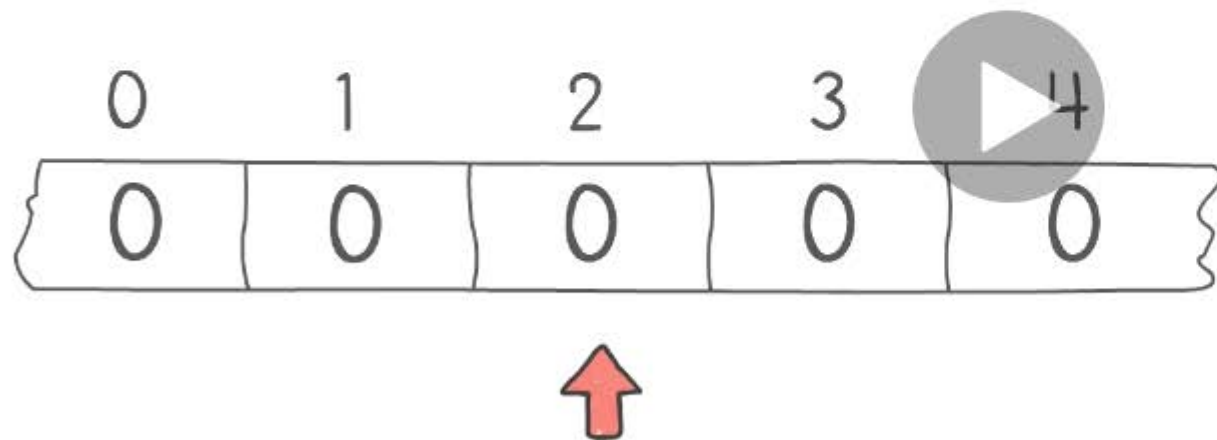


MAX COUNTERS



$O(n + m)$

index = $x - 1$



+ increase(3) ←

+ increase(4)

+ increase(4)

🔍 max counter

+ increase(1)

+ increase(4)

+ increase(4)