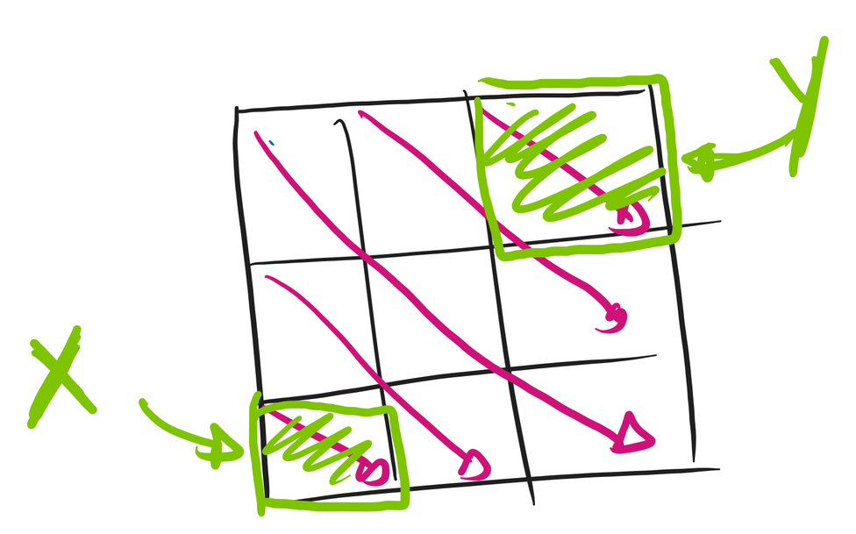


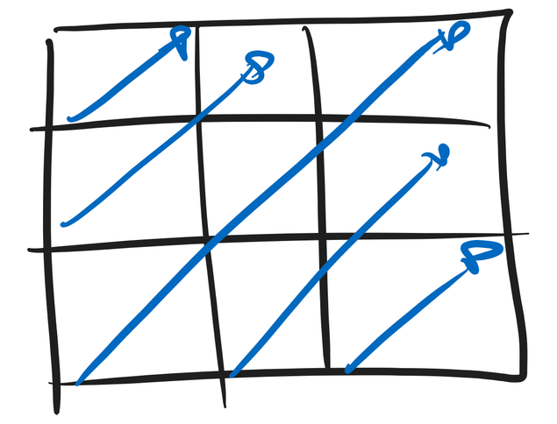
k = 6
ans = 3

k = 4
ans = 2

k = 2
ans = 1

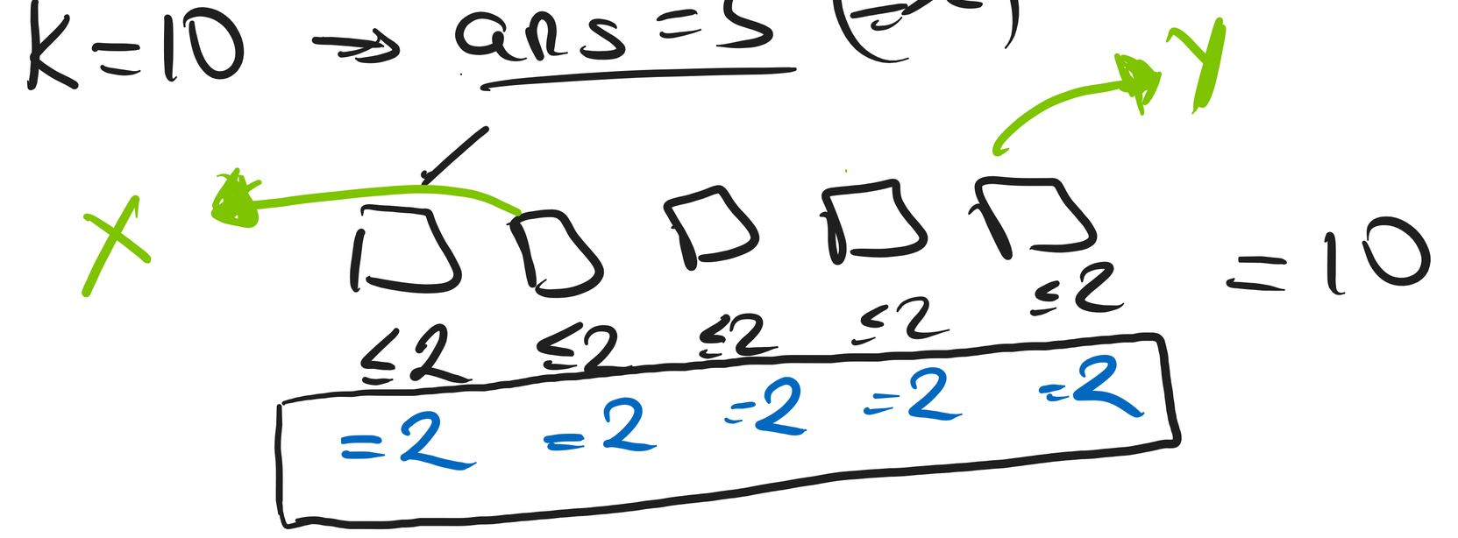
k = 8
ans = 4

k = 10
ans = 6



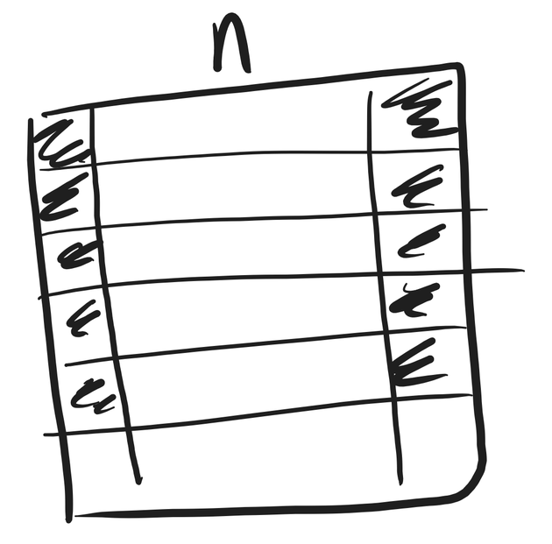
Obs: Por cada casilla coloreada agrego como mucho 2 casillas

k = 10 → ans = 5



ans = (k+1)/2

k = 1 → 1
k = 3 → 2
⋮
k = 4n-5
k = 4n-3 ← 2n-1

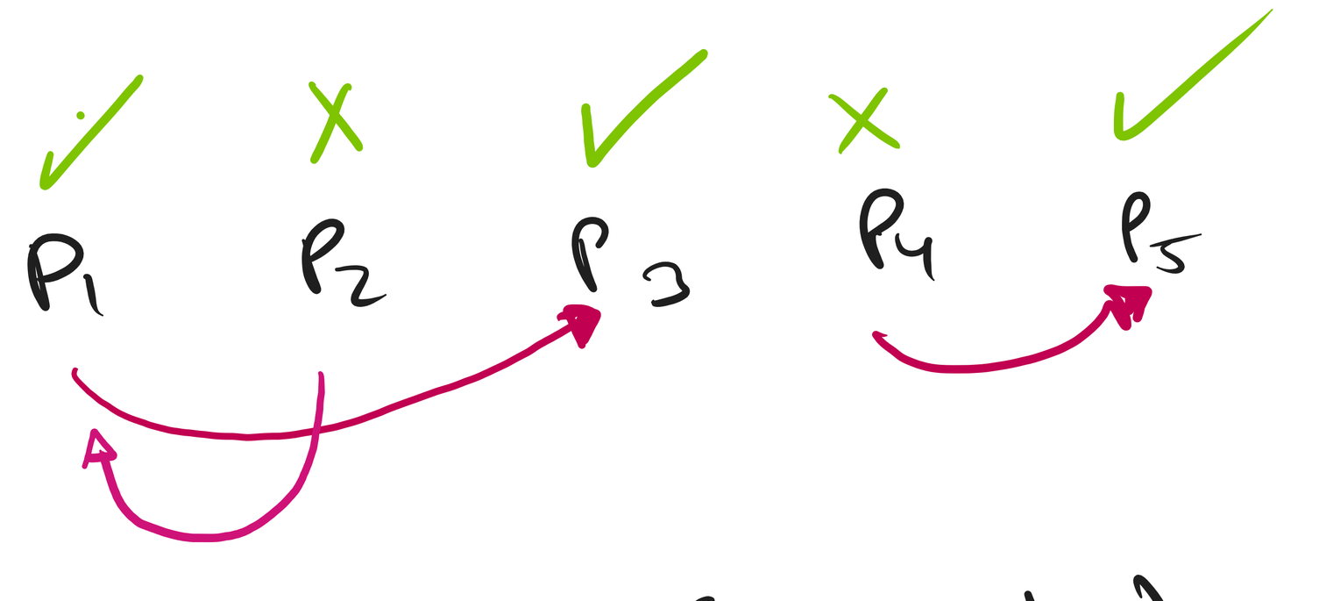


k = 2
k = 4
⋮
k = 4n-4
k = 4n-2 ← 2n

ans = k/2

k = 3 → $\frac{3+1}{2}$ = 2

k = 4 → $\frac{4+1}{2}$ = ②.5



→ 2, 4

vector<bool> called (n, false)

Dado N tenemos que hallar X :

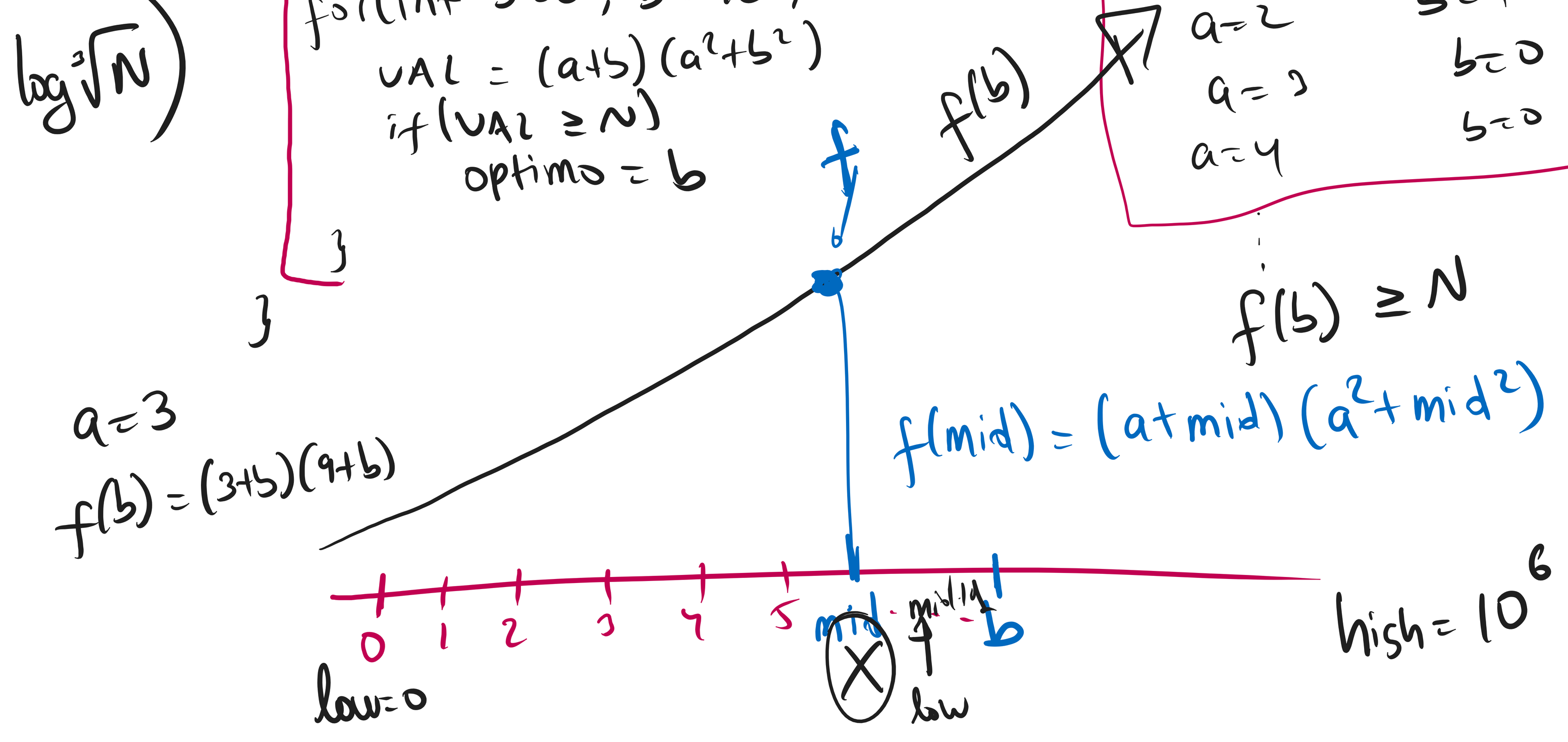
- $X \geq N$
- $a, b \in \mathbb{Z}_0$ / $X = (a+b)(a^2+b^2)$

Ideas/observaciones :

Buscar (a,b) / $(a+b)(a^2+b^2) \geq N$.

```
for(int a=0; a ≤ 10^6; a++){
  for(int b=0; b ≤ 10^6; b++){
    VAL = (a+b)(a^2+b^2)
    if(VAL ≥ N)
      optimo = b
  }
}
```

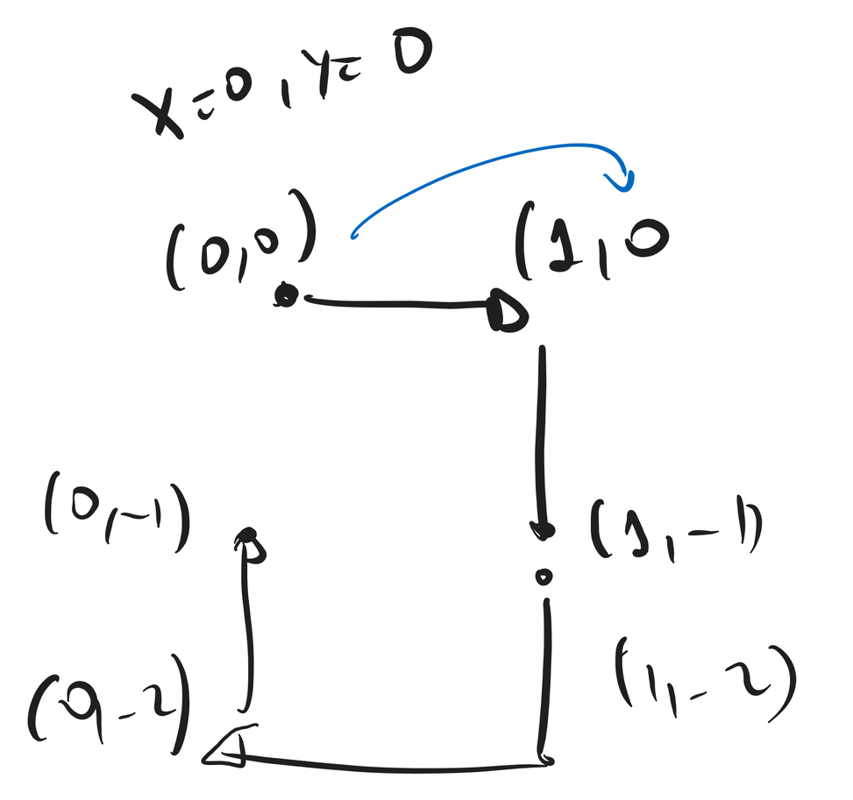
$O(\sqrt[3]{N} \cdot \log \sqrt[3]{N})$



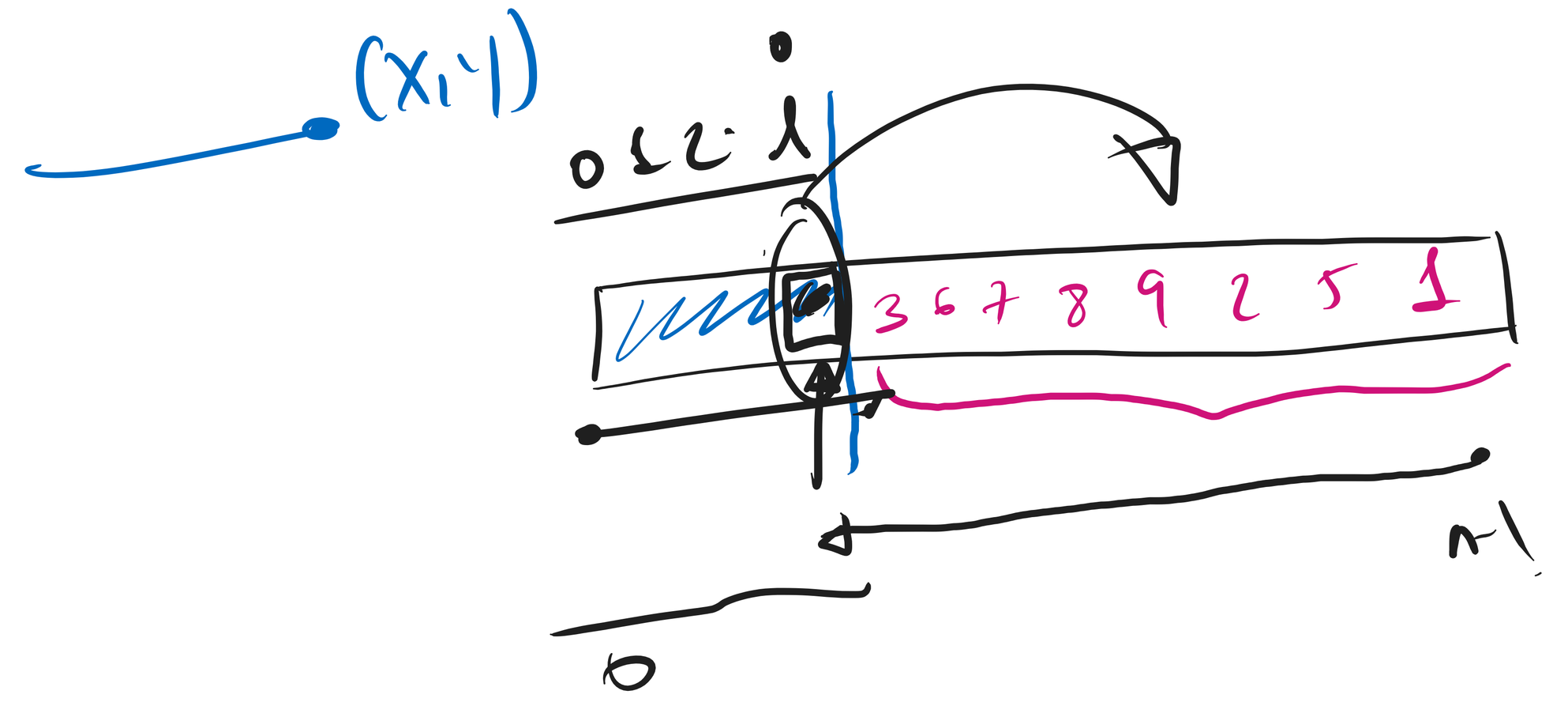
9

a = 0	b = 3 → X = 27
a = 1	b = 2 → X = 15
a = 2	b = 1 → X = 15
a = 3	b = 0 → X = 27
a = 4	b = 0 → X = 64

$f(b) \geq N$



S = { (0,0) , (1,0) , . . . }
↓
set<pair<int,int>>



✓ Complejidad : F_n : $O(2^N)$ recursividad
: $O(N)$ DP
AC : $O(\log N)$ Matrix-Exp

$N \leq 500$ $O(N^3)$

$N \leq 5000$ $O(N^2)$

DP: $O(N^3)$

DP: $O(N^2)$

✓ Simplicidad

Div2D