



Doubt Clearing Session

Course on Basic Data Structures (C++)

$$\begin{array}{cc} A_1 & A_2 \\ B_1 & B_2 \end{array} \quad (B_1 < B_2)$$

$$A_1 B_1 + A_2 B_2 > A_1 B_2 + A_2 B_1$$

$$\Rightarrow A_2 > A_1$$

l_i r_i t

ans: = total - number of ones (l_i, r_i)

only p_1 \Rightarrow - num_ones ()

only p_2 \Rightarrow - num_ones ()

p_1 & p_2 \Rightarrow - num_twos ()

Check if there exists a subarray
with $\text{len} \geq k$ having median
 $\geq m$

$a_1 \quad a_2 \quad a_3 \dots a_l$

$$\text{cnt}(\geq m) > \frac{l}{2}$$

\boxed{l} \boxed{r}

$$\text{pre}(r) - \text{pre}(l-1) > \frac{r-l+1}{2}$$

$$\Rightarrow 2 \times \text{pre}(r) - 2 \times \text{pre}(l-1) > r-l+1$$

$$2 \times \text{pre}(r) - r > 2 \times \text{pre}(l-1) - (l-1)$$

$$\text{pre}[r] - \text{pre}[l-1] > 0$$



Is there any such id s.t. $\text{id} \leq r-k$

and $\text{pre}(\text{id}) < \text{pre}[r]$

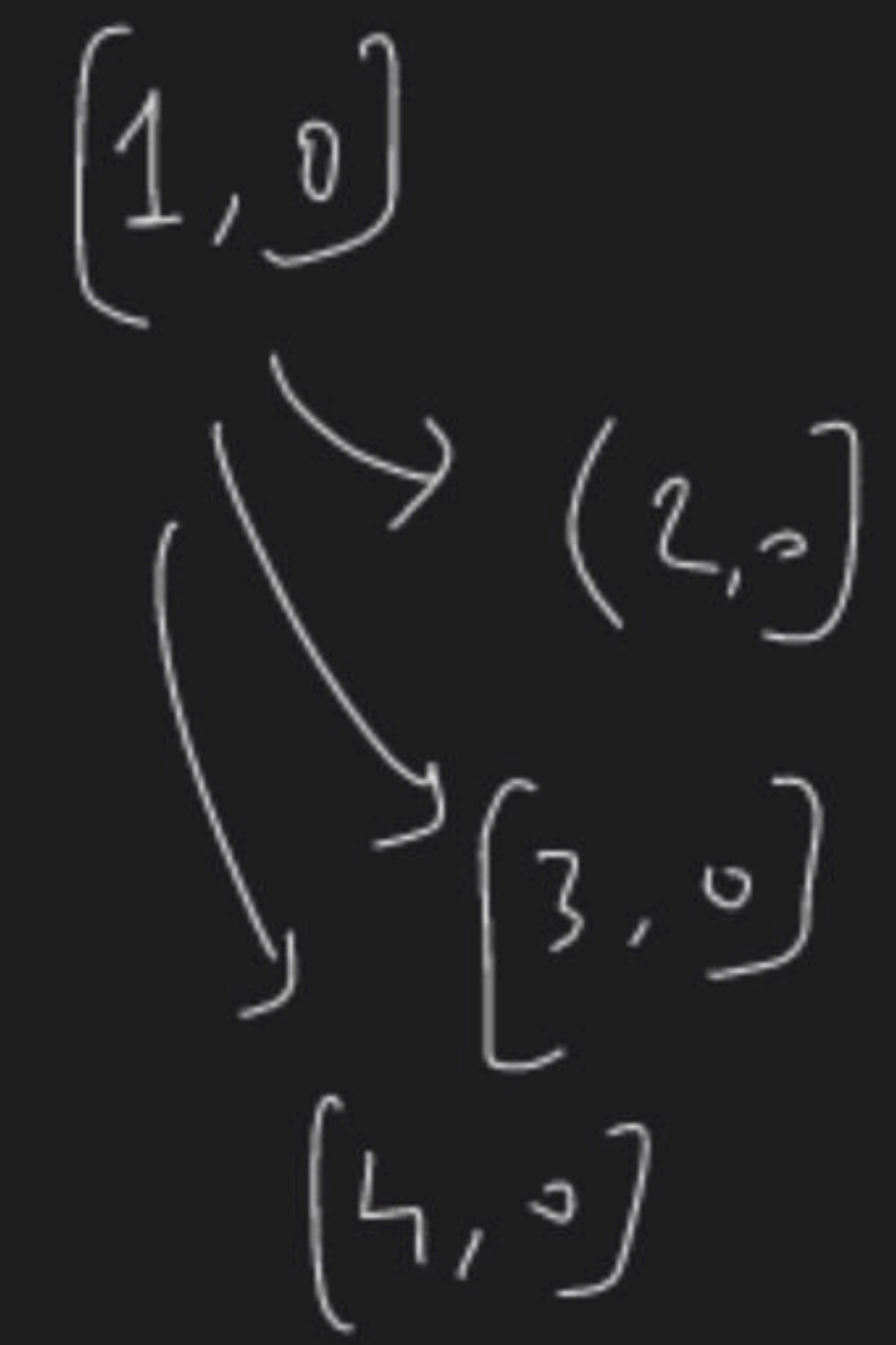
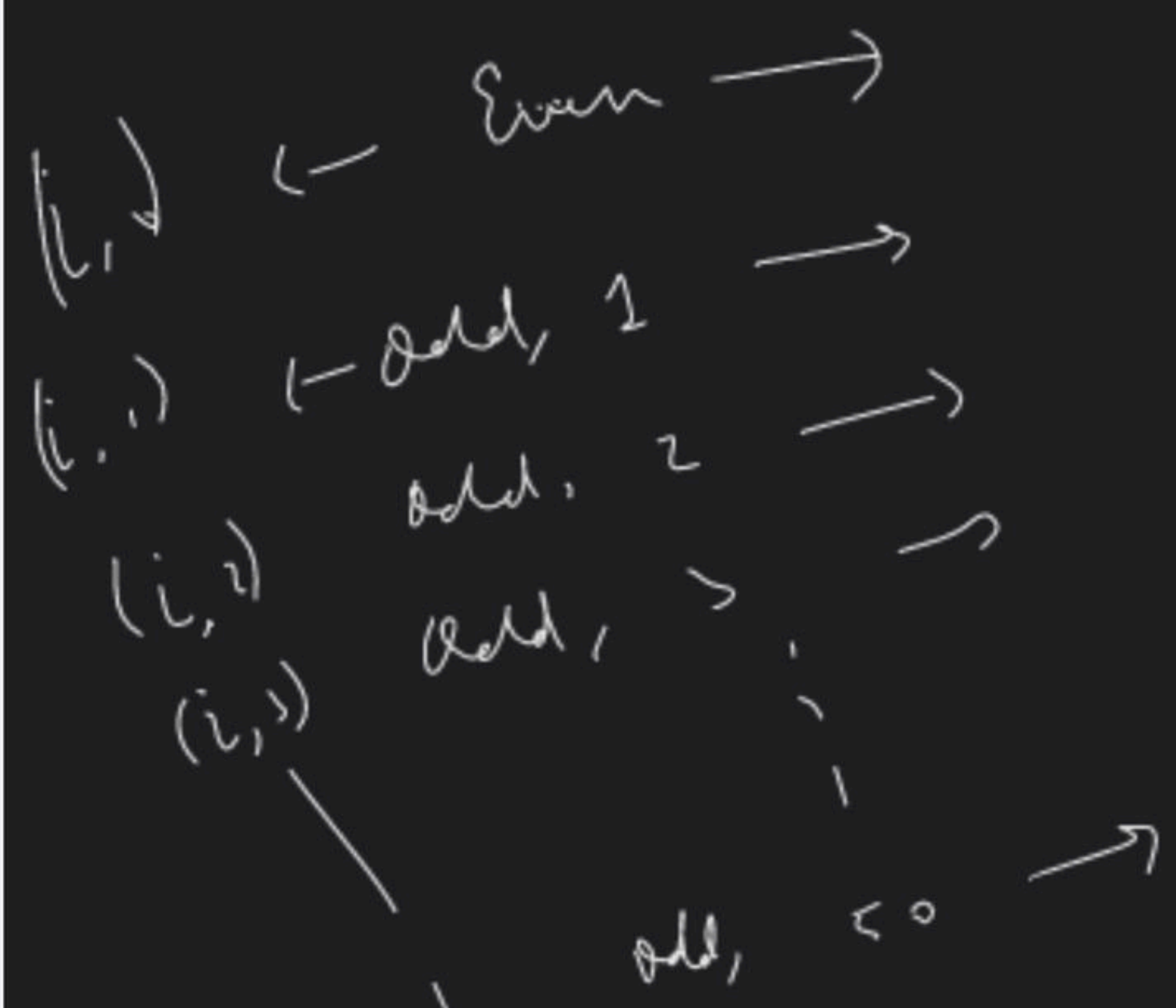


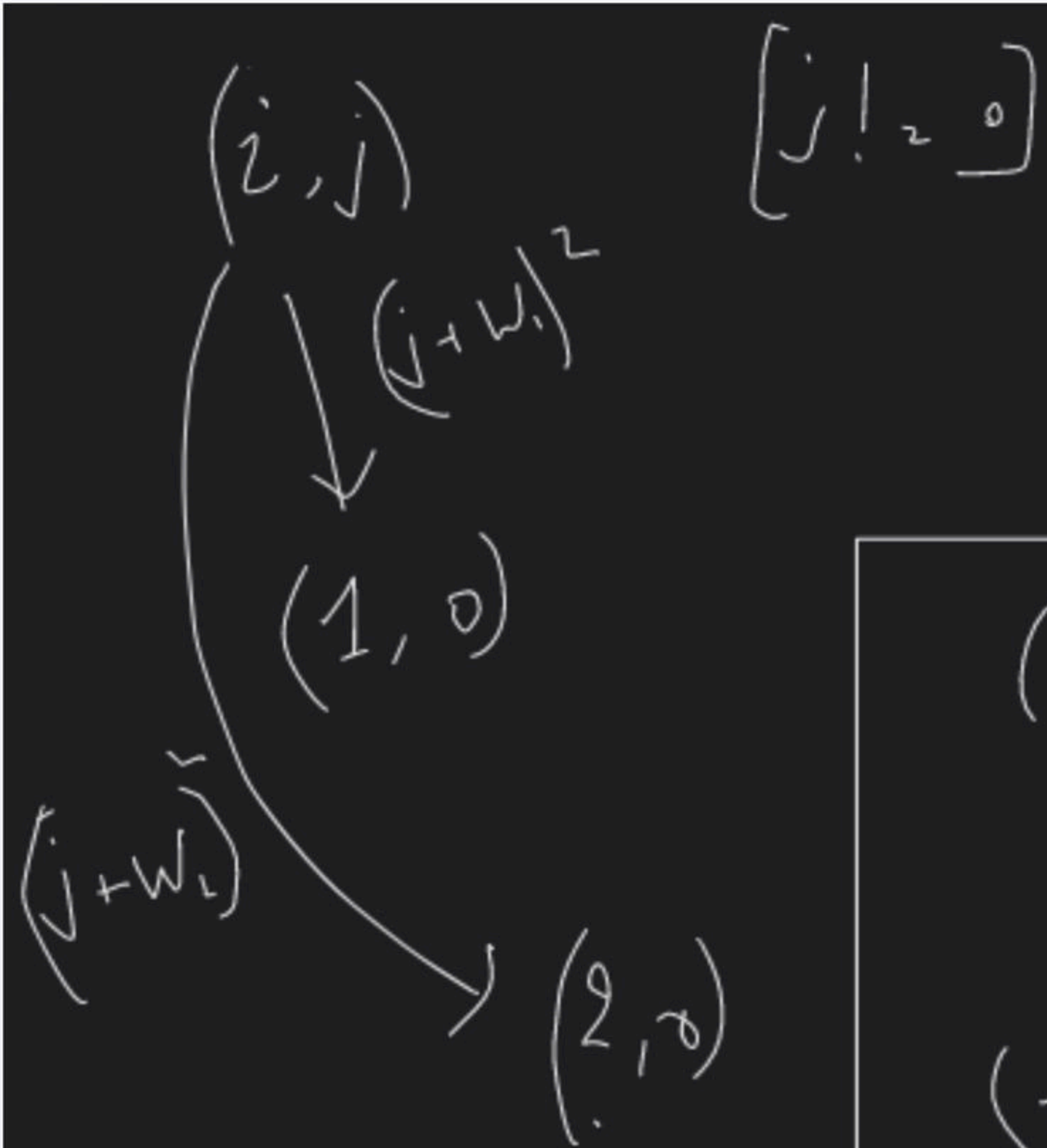
$$\text{pre_min_pre}(r-k) < \text{pre}(r)$$

$N \Rightarrow$ (N) $(\underline{51})$

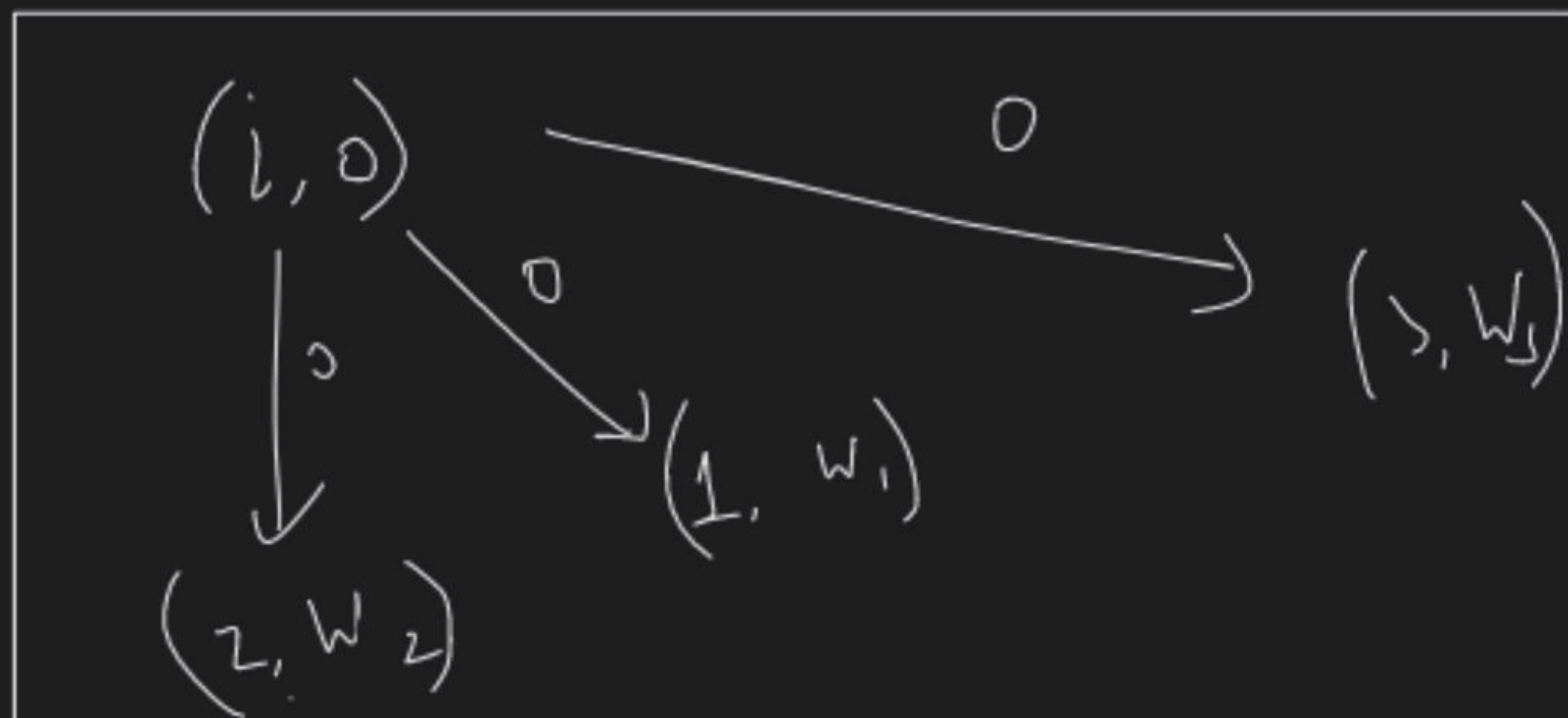
$[i, j]$

(i)





$i \rightarrow 2 \quad w_1$
 $i \rightarrow 2 \quad w_2$
 $i \rightarrow 3 \quad w_3$



$$N \leftarrow 51 * n$$

$$M \leftarrow 51 * m$$