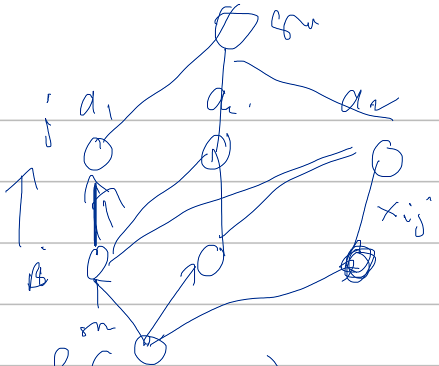


$n \Rightarrow n!$ (fixed) $\times$

n

| simple < fair / not r

$f(e_1, e_2) = p(e_1, e_2)$ [t_1 = , —]

$\neq$ order

$$\max_{k \in P(1\text{-}n)} \sum_{i=1}^{n} p(a_i, b_{k_i})^T \begin{bmatrix} 1 \\ 0.5 \\ 0 \end{bmatrix}$$

Fixed:
~~white~~ 1vs
vs 2:
b

*) asm: $x_{ij} \in \{0, 1\}$

· supply: $\sum x_{kj} = 1$ for $k = 1 \to n$

dem $\sum x_{ik} = 1$ for $k = 1 \to n$

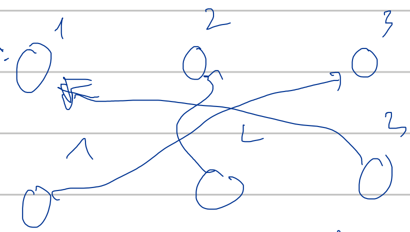
$$\max \sum_{i,j} x_{ij} \cdot p(i,j) \cdot \begin{bmatrix} 1 \\ 0.5 \\ 0 \end{bmatrix}$$

→ prob an of $\boxed{0}$

$i \to j$
order

$\boxed{\text{Pry?}}$

*) Order of round: fixed:



p (i, j, index), 1 → wht, 2 → blu
%2

fixed (order → color/wht)

*) We don't know strategy! 1st chose the best
{ 2nd —

A 1 strategy: permutation: {1, 2, ..., n}
{1, ... n}

B nash equilibrium

| 2 reverses |

?

A \ B	I	II	III	
I	1/2	1	1	
II	0			
III				

$n \times n$

p → 1 wht A wn / drw / B wn | A more? B.

A ∈ B = ①

Nash equilibrium opt

$A - B$

Calculate

?

A \ B			
(,)	,	,	
,	,	,	

p_1 } best for all

p_2

$\max\min = \min\max$

$\Rightarrow$ checking pure strategy has a SP

Nash equilibrium:

For A: fixed $p_1, \ldots, p_n \Rightarrow$

A:

$g_1 = p_1 \cdot b_{11} + p_2 \cdot b_{21} + \ldots + p_n b_{n1}$

$g_n = \ldots$

$$\max_p \min (g_1, \ldots, g_n)$$

s.t. $0 \le p_i \le 1$

} what if p_i? p_i higher.

For B: fix $q_1, \ldots, q_n$

③ all Nash equilibrium:

Max (...)

permut

	p_1	
q_1	x	

t_k ?

$\{t_1, \ldots, t_n\}$

Max of all t_k

Max (max(score)