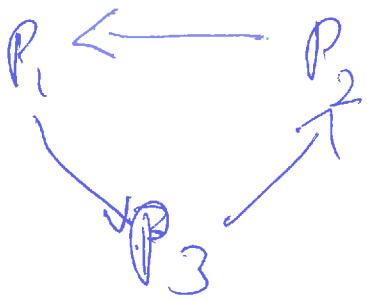
Top-Trading Cycle Procedure (TTCP)

↳ n players
↳ Each player i owns a house h_i
↳ Each player has strict preferences over the houses.

Ex

P_1	P_2	P_3
h_3	h_1	h_2
h_2	h_2	h_3
h_1	h_3	h_1

Iteration



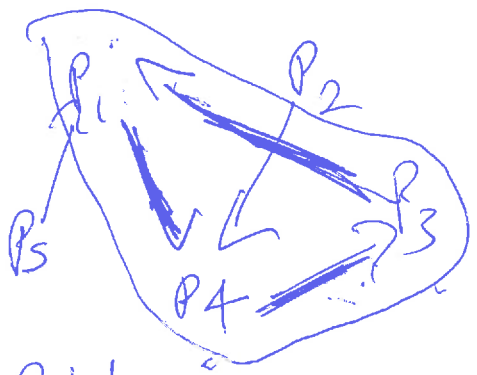
Allocate

P_1 : h_3
P_3 : h_2
P_2 : h_1

Ex

P_1	P_2	P_3	P_4	P_5
h_4	h_4	h_1	h_3	h_1
h_3	h_1	h_4	h_2	h_5
~~h_2~~	h_2	h_3	h_1	h_2
h_1	h_3	h_2	h_4	h_4
h_5	h_5	h_5	h_5	h_3

Iter 1



P_1 : h_4
P_4 : h_3
P_3 : h_1

Iter

P_2	P_5
h_2	h_5
h_5	h_2

$P_2 : h_2$

$P_5 : h_5$

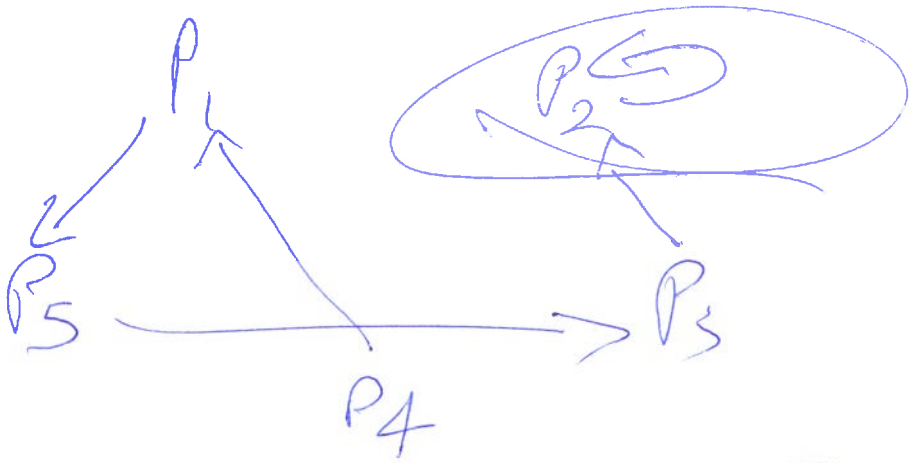
Final Allocation

$P_1 : h_4$
$P_2 : h_2$
$P_3 : h_1$
$P_4 : h_3$
$P_5 : h_5$

Ex

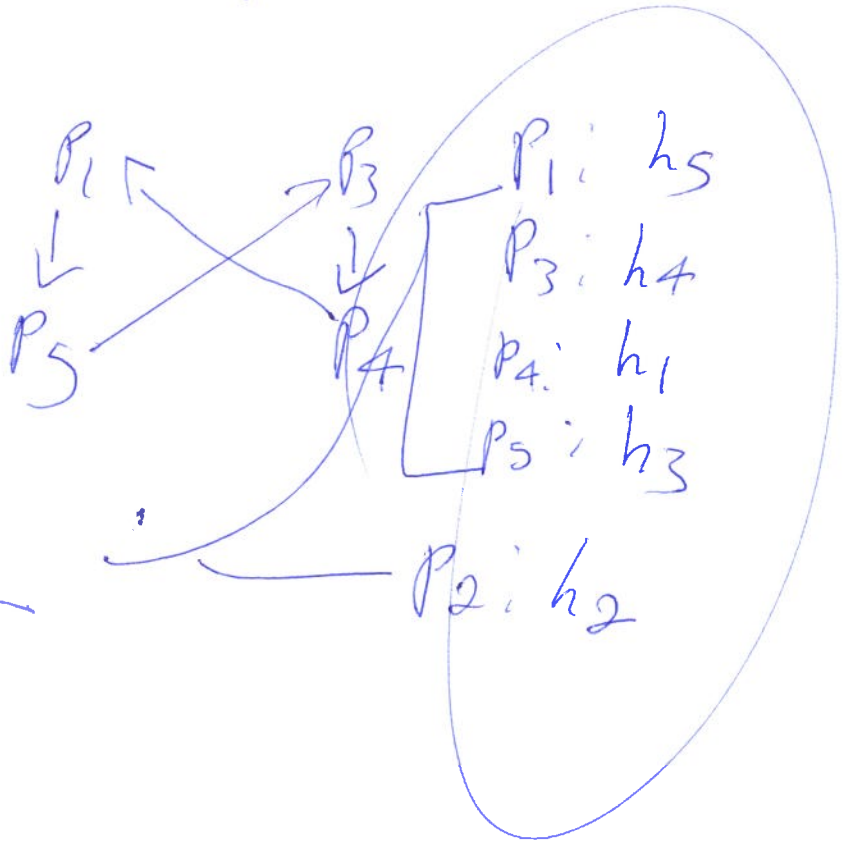
P_1	P_2	P_3	P_4	P_5
h_5	h_2	h_2	h_1	h_3
h_3	h_3	h_4	h_2	h_4
h_2	h_4	h_3	h_3	h_2
h_4	h_5	h_5	h_5	h_1
h_1	h_1	h_1	h_4	h_5

Iter 1



$P_2 : h_2$

Iter 2



Final Allocation