Q: $ans(x) \leftarrow a(x,x), a(x,y)$

I: a

A	B
~~1~~	~~1~~
2	1

$Q(I) = \{1\}$

Q' $ans(x) \leftarrow a(x,x)$

$$Q \subseteq Q'$$

$$Q' \subseteq Q$$

Q : $ans(x) \leftarrow a(x, x), a(x, y)$

Q' : $ans(x) \leftarrow a(x, y)$

$Q' \subseteq Q$ trivial.

$Q \subseteq Q'$?

$Q: ans(X) \leftarrow a(X, X), a(X, Y)$

$Q': ans(A) \leftarrow a(A, A)$

$Q \subseteq Q'$

$Q' \subseteq Q$?

mapping from vars ∪ cons of Q to vars ∪ cons to Q'

θ	X	Y
	A	A

$\theta(a(X, X)) \longrightarrow a(A, A)$

$\theta(a(X, Y)) \longrightarrow a(A, A)$

$\theta(ans(X)) \longrightarrow ans(A)$

θ is a cont. mappg.

$Q : ans(x) \leftarrow R(x, x), a(x, y)$

$Q' : ans(x) \leftarrow a(x, y)$

$$Q' \nsubseteq Q$$

$\underset{\sim}{I}$

a	A	B
	1	2

$Q(\underset{\sim}{I}) = \emptyset$

$Q'(\underset{\sim}{I}) = \{1\}$

$O(n)$?

$Q1$: n vars

$Q2$: π $\underline{m}$ vars.

$Q1 \equiv Q2$

$\mathcal{T}$

$\pitchfork \; I$

$u = \mathcal{T}(\vec{U})$

Q_1

$\pitchfork \; \underline{\Theta}$

Q_2

$u = \mathcal{T}'(\vec{V})$

$Q: \; ans(X) \leftarrow a(X,X), a(X,Y)$

$Q': \; ans(A) \leftarrow a(A,A)$

θ	X	Y
	A	A

is a cont. mapping.

$\mu \in Q'(I)$

μ
1

I :

a	A	B
	1	1

$\tau : A \rightarrow 1$

$\tau' = X \rightarrow 1, Y \rightarrow 1$

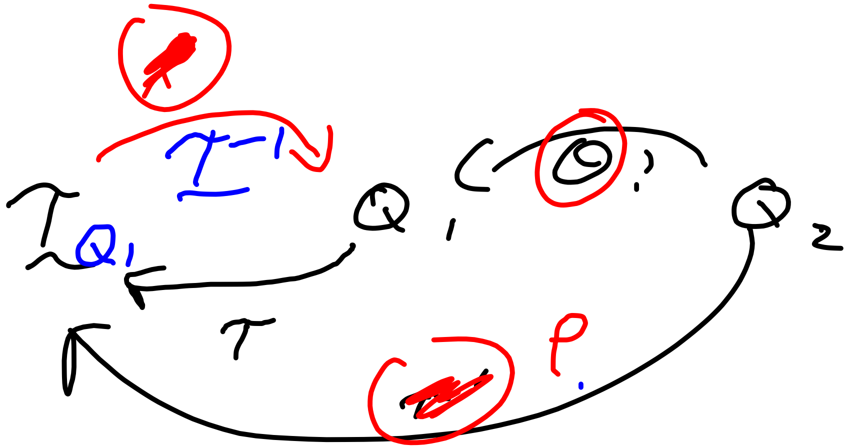
to prove:

$\mu \in Q(I)$

$\mu \in \tau'(ans(X))$

Ass. $Q_1 \sqsubseteq Q_2$

we have to find a containment mapping Θ from Q_2 to Q_1

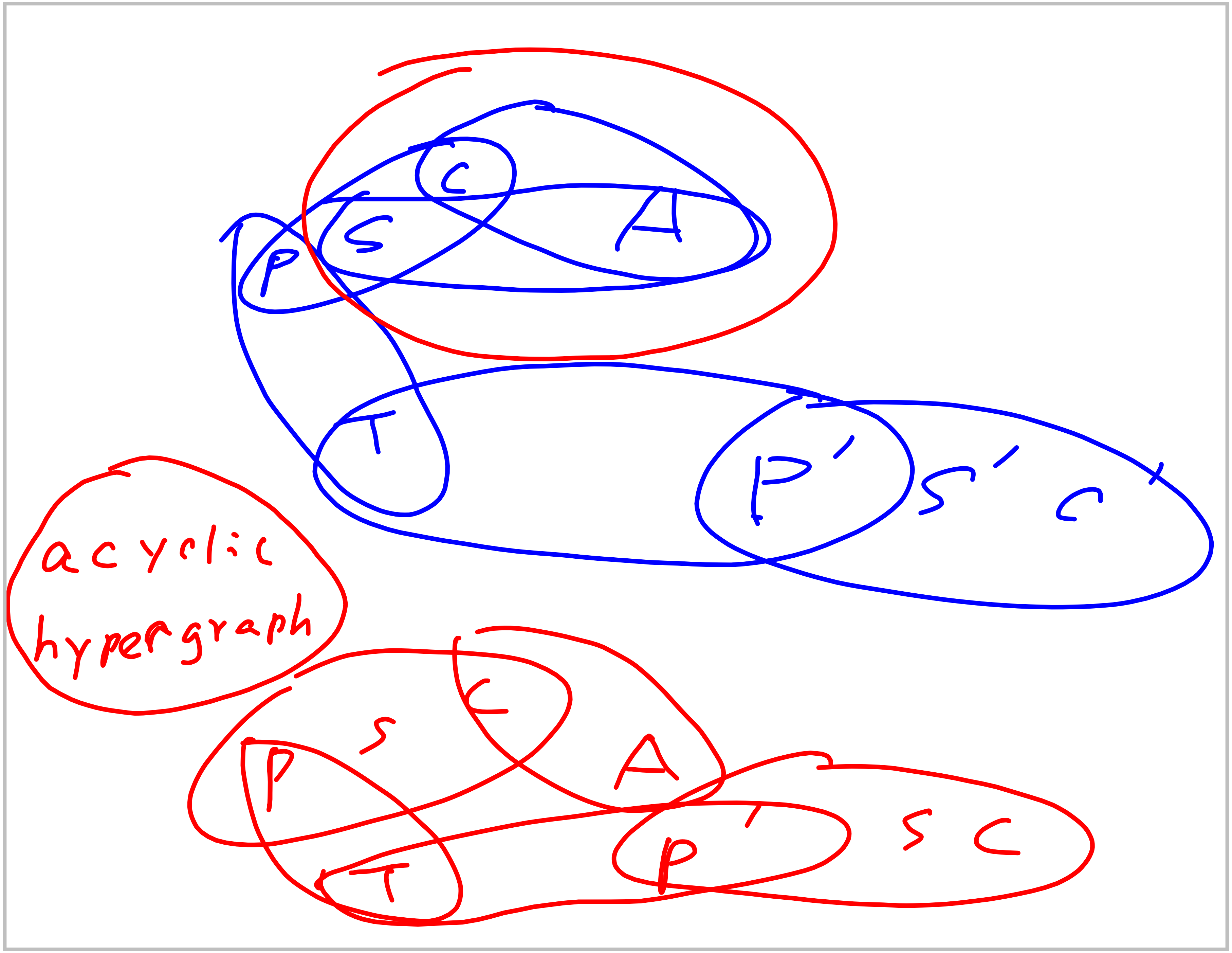


τ: $x \to 1$ $\quad$ τ^{-1} does not exist.

$y \to 1$

τ is a one-one mapping.

τ^{-1} is also a mapping


C
S
A
P
T
P'
S'
C'
acyclic hypergraph
C
S
A
P
T
P'
S
C