

Lecture 38

CSE 331

May 4, 2020

Sample Final Exam

note @738

Sample final exam

Sample final exam is finally available:

- [Sample final](#)
- [Sample final solutions](#)

(These are also available under the "Sample Exams" dropdown menu from the banner on the 331 webpage.)

Note that, the actual final exam will be a bit structurally different than this one. There won't be sub-parts as in Q1 and Q2; every question will be different.

Two comments:

- I would recommend that you not peek at the solution before you have worked on the sample final on your own.
- As with the sample mid-terms, do **not** try and deduce anything about the topic coverage in the actual final exam (will post on how to prepare).
 - However, the sample exam was an actual final exam in one of the past years. Your final exam will be of comparable difficulty.

#pin

final_exam

edit

good note | 0

The final exam post

Coming today!

Course evaluations incentive

note @703

Incentive for filling in course evals

I will release some questions on the final exam **depending on the level of response on the official course evals.**

- If $\geq 85\%$ students submit the course evals, I will release **Q1**
- If $\geq 90\%$ students submit the course evals, I will release **Q1 AND Q2**

Some other relevant comments:

- I will post the current response rate in the comments section below every 3 days until May 9th.
- The % is based on current student registered (151): i.e. it does not include students who have resigned
- I believe this is the link to the course evals: <https://sunyub.smartevals.com/>
 - But double check the email you might have received on this.

#pin

logistics

edit

good note | 0

Resolved Unresolved



A. Erdem Sariyuce 5 minutes ago

72% @ 5/4

good comment | 0

Reply to this followup discussion

$$Y \leq_P X$$

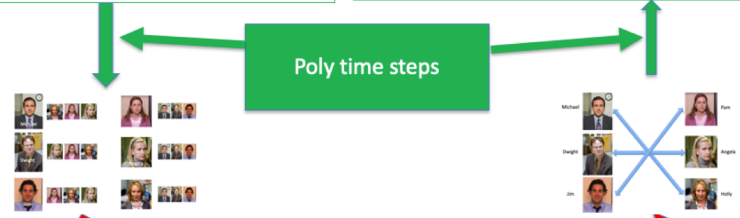
Question 2 (Big G is in town)

\leq_P



CSE Major	Slot 1	Slot 2	Slot 3	Slot 4
S ₁	E ₁	free	E ₂	free
S ₂	free	E ₁	free	E ₂

CSE Major	Slot 1	Slot 2	Slot 3	Slot 4
S ₁	E ₁	free	E ₂ (truncate here)	
S ₂	free	E ₁ (truncate here)		



Poly time steps

ANY algo for stable matching problem works!

All processing is poly-time

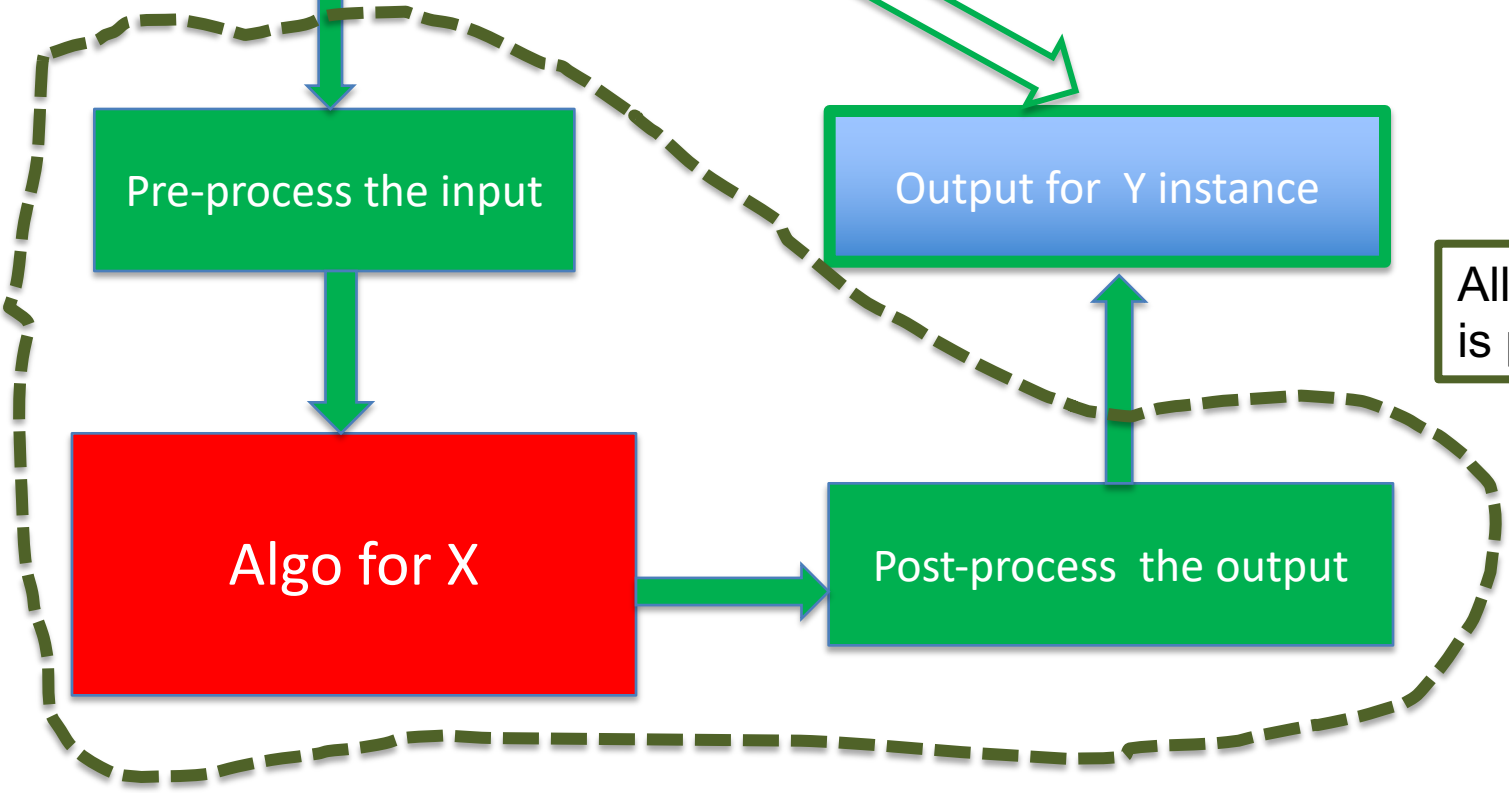
Arbitrary Y instance

Pre-process the input

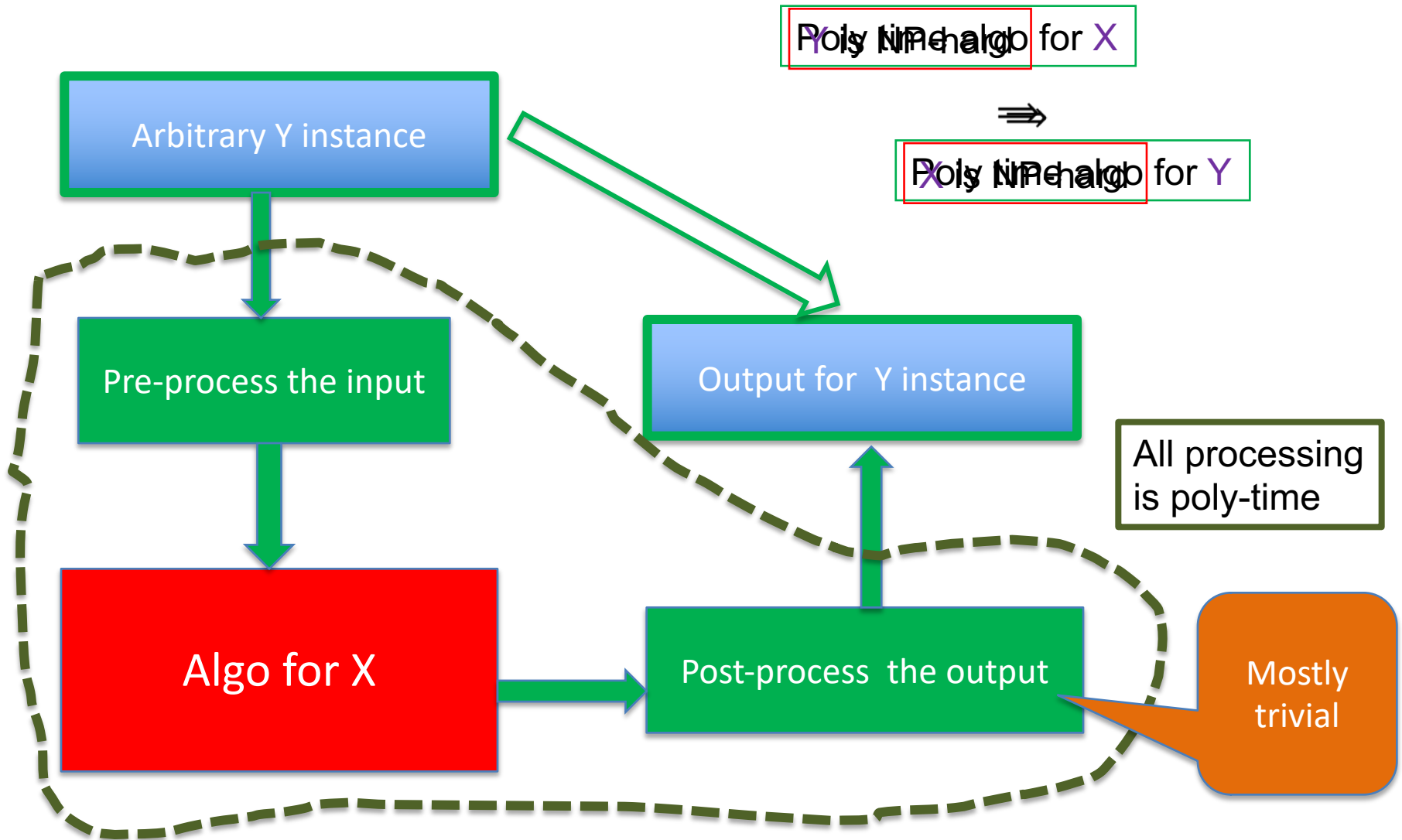
Algo for X

Output for Y instance

Post-process the output



Implications of $Y \leq_p X$



Today's agenda

Recap of NP-completeness

NP-completeness of k -colorability