

# Try it!

Why are these not stable matchings?

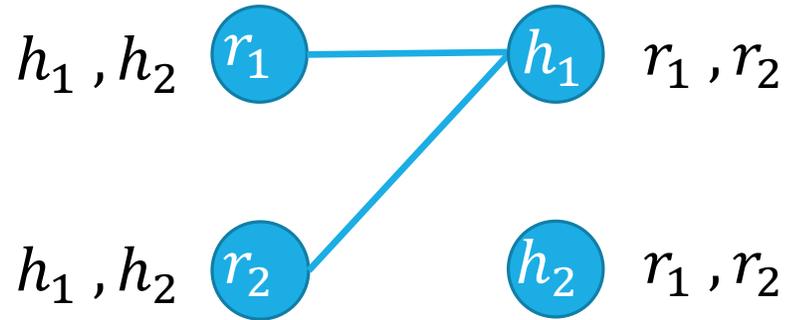
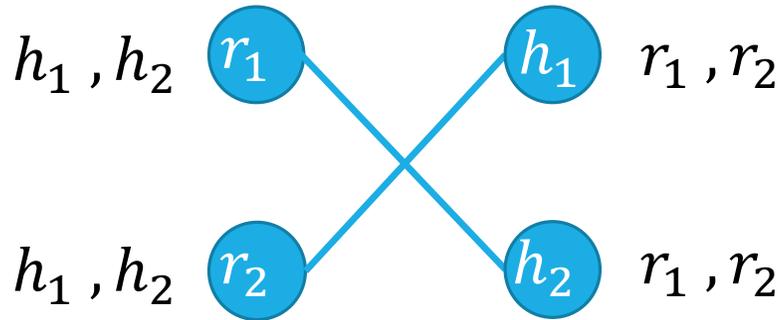
Introduce yourselves!

If you can turn your video on, please do.

If you can't, please unmute and say hi.

If you can't do either, say "hi" in chat.

Choose someone to share screen, showing this pdf.



Find a stable matching for this instance.



Fill out the poll everywhere for  
Activity Credit!

Go to [pollev.com/cse417](https://pollev.com/cse417) and  
login with your UW identity

# Stable Matching, More Formally

Perfect matching:

- Each rider is paired with exactly one horse.
- Each horse is paired with exactly one rider.

Stability: no ability to exchange

an unmatched pair  $r-h$  is **blocking** if they both prefer each other to current matches.

Stable matching: perfect matching with no blocking pairs.

## Stable Matching Problem

**Given:** the preference lists of  $n$  riders and  $n$  horses.

**Find:** a stable matching.