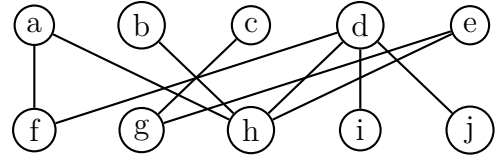
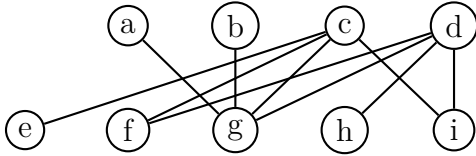


Weekly Problems 6

Due: 16 Feb 2024 at midnight EST as a PDF on Submittity
v1.0: Last Updated February 15, 2024

1. Find a maximum matching on each bipartite graph below. Prove that this matching is optimal using any approach you want.



2. Prove that the Gale-Shapley algorithm will always output a stable solution. *Hint:* A straightforward way to do this is by showing that no man is ever rejected by all women.