CSE421: Design and Analysis of Algorithms

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Problem Solving Session 1

- P1) Construct an instance of the stable matching problem with 4 companies and 4 applicants that has 3 stable matchings.
- P2) Show that an instance of the stable matching problem has exactly one stable matching iff the company optimal matching is equal to the applicant optimal matching.
- P3) Suppose we put n circles into the plane. Show that we can color the regions with 2 colors such that any two neighboring regions are colored with distinct colors.