

Stable Marriage Problem

Problem formulation (1st attempt)

Input: Set of employers, Set of applicants,
Set of preferences

Output: An assignment of applicants to employers
that is "stable"

I.e. $\forall$ employer E & applicant A s.t.

A is not assigned to E either

(1) ~~E prefers all~~ E prefers all ~~its~~ its assigned applicants
to A .

[OR]

(2) ' A ' prefers its current employer E' to E

①

- (Q1) ~~How~~ How do we specify preferences
- (Q2) Ratio of applicants vs employers?
- (Q3) Define assignment
- (Q4) Can an employer have > 1 employee
- (Q5) Can an applicant have > 1 job
- (Q6) How many employers/applicant in each pref. list
- (Q7) Does every employer have ≥ 1 employee
- (Q8) ~~Does~~ — applicant have ≥ 1 job.