

Discussion 7

Sunday, October 14, 2018

6:55 PM

Topic: Linear Programming

- Goal: Given linear constraints, ^{equations/inequalities} maximize/minimize a linear objective function.
- Solving linear programs:
 - 1) plot feasible region; take the intersection
 - 2) choose the optimum vertex.
plug each vertex into objective func & choose the best
- 2 cases when there's no optimum:
 - 1) infeasible;
 - 2) unbounded;
- Runtime: Use simplex to solve in polynomial time in practice.
- Application: max flow
 - 1) algorithm
 - 2) optimality