

In this project we will be working on the following objectives:

- Learning to apply course material
- Developing skill in expressing myself orally or in writing

Each group of 3-5 students will present one of eight application topics in class on April 20 or 22. I will email the class to solicit input on the assignment of groups and topics.

### Group Preparation

- Solve the designated problem. (Problems marked with an asterisk are challenge problems.)
- Write up your solution (only one per group) and turn it in on the day that you present. It will count as a quality solution.
- Create and rehearse your presentation. (Time yourselves!)

### Group Presentation

A good presentation will explain: (1) the context/set-up of the problem, including what quantity needs to be optimized, (2) what constrains the optimization, and (3) the solution to the problem.

- Length: 7-10 minutes.
- Use the board. Come early to class to write up the main points of your explanations.
- Give each group member a chance to speak.
- The presentation will count towards your grade like a quality solution.

### Application Problems

- Biology: flight of crows (HH 35)
- Agriculture: yield of an apple orchard (HH 37)
- Minimize cost (HH 26, 28\*, TK 35-38 (one problem), 39, 40\*, 41\*, 42\*, 59\*)
- Maximizing revenue (HH 27, 30\*)
- Survival: save your burning tent! (TK 62\*)