

Problem Set #2

Some reminders about logistics. See the course webpage for full details.

- **Submission Policy:** Submit psets via gradescope. Student psets must obey the following constraints:
 - Each problem starts on its own page.
 - The first page has the following metadata:
 - * author(s) of the problem set
 - name(s)
 - netid(s)
 - * pset number
 - * list of collaborators
- **Collaboration Policy:** Starting with *this* problem set, students are allowed to work in groups of up to three.
- **Late Policy:** Late psets are not accepted. Instead, several lowest-scoring pset problems will be dropped from a student's score.

All problems are of equal value.

1. Maximizing over parenthesization. Erickson Chapter 3, Problem #33 (<https://jeffe.cs.illinois.edu/teaching/algorithms/book/03-dynprog.pdf>).
2. Awkwardness. Erickson Chapter 3, Problem #48 (<https://jeffe.cs.illinois.edu/teaching/algorithms/book/03-dynprog.pdf>).
3. Counting shortest paths. Kleinberg-Tardos Chapter 6, Problem #22.
For full credit, your solution must also analyze the space complexity of the algorithm.