

## CSE 101: Homework 2

---

### Due: Day 12

When presenting an algorithm, make sure you have:

- A clear (pseudo-code) description of the algorithm
- A proof that it is correct (loop invariants may help)
- An analysis of its runtime (stating the runtime isn't sufficient, provide a proof or justification).

For full credit, you need all three pieces.

### Exercises

1. *Kleinberg* Chapter 5, Exercise 1. 20 pts.
2. *Kleinberg* Chapter 5, Exercise 2. 20 pts.
3. *Kleinberg* Chapter 5, Exercise 3. 30 pts.
4. *Kleinberg* Chapter 5, Exercise 4. 30 pts.
5. *Kleinberg* Chapter 5, Exercise 5. *Extra credit*, 20 pts.