6.005 Recitation 6

- **PSET 2**
  - Due Date pushed to Sunday 11:59 PM
  - Additional office hours during weekend. Will update with time/location

- **Abstract Classes**
  - Declared with keyword abstract
  - Cannot be instantiated (no new MyAbstractClass() )
  - Specifies methods to be implemented by subclasses with abstract keyword on methods
  - Unlike interfaces, CAN contain member fields and method definitions
  - [http://docs.oracle.com/javase/tutorial/java/IandI/abstract.html](http://docs.oracle.com/javase/tutorial/java/IandI/abstract.html)

- **Immutability**
  - Why bother?
    - Easy to reason about
    - Data structures can be safely shared. More on this below
  - Immutable Lists?
    - A common operation is adding to a list. How can we do this to an immutable list?
      - Instead of modifying the list, we return a new lists with the added element
        - E.g. new List = cons(new Value, old List)
        - Wasteful of Memory? No, the new list can use the same objects in old list
  - Sudoku
    - Variables and clauses will be repeated many times in formulas
      - If mutable, we'd have to create a new copy each time
      - But we can reuse them, if we guarantee they are immutable