Chapter 4 roadmap:

- Subset proofs (Wednesday)
- Set equality and emptiness proofs (Today)
- Conditional and biconditional proofs (next week Monday)
- Proofs about powersets (new week Wednesday)
- From theorems to algorithms (next week Friday)
- (Start Chapter 5 week after next)

Today:

- Proofs that sets are equal
- Proofs that a set is empty

Project proposal due TODAY, Friday, Sept 30.

General forms:

1. Facts ($p$)
   
   **Set forms**
   
   1. Subset $X \subseteq Y$
   2. Set equality $X = Y$
   3. Set emptiness $X = \emptyset$

2. Conditionals ($p \rightarrow q$)

3. Biconditionals ($p \leftrightarrow q$)
For next time:

Pg 160: 4.3. (3, 14, 15, 18)
Pg 161: 4.4. (5 & 6)

See assignment on Schoology for hint on Ex 4.3.15.

Read 4. (5–8)
Take quiz

Project proposal due TODAY, Friday, Sept 30.