Proof strategies

(Basically, deciding **what** to prove!)

1. Direct proof: assume P, prove Q;
2. Contrapositive: assume $\neg Q$, prove $\neg P$;
3. Proof by contradiction: assume P and $\neg Q$, show this is absurd;
4. Induction (... hold off on this until later)
5. Break the main result into pieces (lemmas, corollaries...)