Two-person games

- Two players, A and B. A starts.
- In the beginning there are two piles of stones, with K and L stones respectively.
- During a turn, a player must take at least one stone – the choice is between one stone off of both piles, or one stone off of one of the two piles. The person who takes the last stone wins.
- Who wins when
  - K = 1 and L = 1?
  - K = 2 and L = 1?
  - K = 3 and L = 3?
  - K = 4 and L = 16?
- You can probably figure out a pattern here… but see if you can try to *prove* that you are right. (This is something you'll learn how to do in this class.)
- Spoiler: this can be solved using dynamic programming, and the proof of correctness uses induction