

Administrivia

- Reminder: Homework 3 due Thursday.
- Quiz 2 Thursday. For topics refer to Administrivia slide from previous lecture.

Slide 1

Mathematical Induction — Review/Recap

- Basic idea is to prove something true for all integers greater than some base value (usually 0 or 1) in two steps:
 - Base case — prove directly for smallest value.
 - Inductive step — prove that if true for k (first principle), or all numbers from base case through k (second principle), then also true for $k + 1$.

Slide 2

Examples

- “Tearing stamps apart” example from last time — one student commented after class that it only works with the right definition of “tear operation”. True! Precise definitions are often not as easy as they might seem!
- Section 2.2 problems 31, 64.
- Section 2.2 problems 51, 53, 65a, 65b (students).

Slide 3

Minute Essay

- We’ve tried two ways of students doing problems — at the board and what we did today. Which do you think works better?

Slide 4