

# ACADEMIC SKILLS FOR STANFORD STUDENTS

## LEARNING FROM PROBLEM SETS

### Do the 15-minute brain builder

- **Why this works:** The harder your brain has to work to come up with the answer without looking at the notes, the more durable your learning will be.
- **How to do it:** For the first problem you do in every problem set, start the timer for 5–15 minutes. Work on the problem for the entire time without reviewing notes. Jot down any questions as you go: the hows, whys, and what ifs. Afterward, get every question answered from your notes, other students, TAs, or Piazza. Pro Tip: Work the problems you're uncomfortable with.

### Ask “Why did I do it?”

- **Why this works:** If you know why you took the steps you did, you'll more easily create an effective strategy when your knowledge is tested with more complex problems.
- **How to do it:** After finishing a problem, for each step you took, jot down what you did and why you did it. You'll benefit even if you only have time to do this for just one problem in the problem set.

### Link problems to problems

- **Why this works:** The problems you will see on the test will likely be complex combinations of problems you've already solved. Getting used to seeing similarities and differences will help you think creatively about the harder test problems.
- **How to do it:** For one of the problems in every problem set, look for one other problem you've encountered that is similar but also different, perhaps from another problem set. Ask yourself, “How are they alike? Why are they different?”