

On Doing Homework

When doing homework, your *first* option should always be to try to solve the problem yourself. *Why?* Because it's good for you! It helps you internalize/digest the material that you heard from lecture. It makes you think. It develops your problem-solving skills – which according to some folks from industry is one of the most important skills they look for in a job candidate. Best of all, it is extremely gratifying to solve a challenging problem on your own.

So suppose you read a homework problem and at first glance you have no idea on how to proceed. What should you do? Here are some tips:

First, make sure you *understand* the problem. The problems in this class are often described in a general manner. Instantiate the problem – specify values, create actual graphs, etc. – and solve it. Do you see any patterns after you've tried out a few examples? Might the pattern you've noticed be something you can use to solve the general problem?

Second, read through your notes and the book to clarify definitions and to generate ideas. Maybe the approach I used to solve one example is something you can use as well.

Third, give yourself some time. Often, you need different concepts to “gel” in your head before you can “see” the solution. Think about the problem when you're commuting and/or when you're exercising, etc. This is perhaps the number one reason why you've got to start your homework *early* – you need time to be your friend!

Finally, if you're still stuck, talk to a friend or send me e-mail for a hint. Sometimes, a few suggestions can get you quickly on track.

If you do collaborate with others and/or consult resources other than your book, you must indicate in your submission who you worked with, cite the sources you used, and *write solutions in your own words*. Homeworks are due at the beginning of the class. No late homeworks please!