

A NOTE ON HOMEWORK PROBLEMS

Homework problems are now sorted into three categories:

- *Exercises*: Solutions require facility with definitions and concepts. The work should be relatively straightforward if you are keeping up with recent material. Exercises are frequently computational in nature (but not all computations are exercises!).
- *Problems*: Solutions require competency with new content. Some insight may be required in determining which theorems or concepts to invoke. Problems are frequently proofs of small corollaries of our recent propositions and theorems.
- *Challenges*: Solutions require mastery over new content, and may also depend on clever problem-solving.

Adequate assignments will have excellent solutions to all exercises and most problems, and should also exhibit genuine engagement with challenges. More-than-adequate assignments will do more.

Above all, keep in mind that all of this sorting is quite artificial and is only intended to help you set expectations and structure your time as you work on the homework. You may find some exercises hard and some challenges blindingly easy. Treasure your work regardless of whether it leads to an “answer” — a non-solution to one of these problems may be the perfect idea for a future piece of work.

Finally, start working on your homework early. Many of the problems will be accessible after Monday or Tuesday’s lecture. Take care of the easier work first and then strategize as to how you will apply your time and energy (and my time and energy in office hours!) to the remaining mathematics.