

Homework 1 – Due Tuesday, January 30

Reminder: Homework problems are for you to develop skills and to practice. Once you get a handle on solving these problems, think of generalizations and practice those as well. Clear communication is as important as the right technical idea, and you should write up your solutions clearly so that they can be understood by a non-specialist (and non-mindreader!).

Next Tuesday (Jan 30) we will discuss solutions. There will be a quiz on Thursday (Feb 1) consisting of a single problem similar to one of these.

1. What are the main parts of a computer science research paper – list each with a one sentence description of what purpose it serves.
2. Draw a system model, identifying data at various parts in the system, for processing a credit card purchase in a store. I'm not expecting you to know or report on how this *actually* works in stores today, but I want you to think, from your own personal experience, about the “pieces” in such a system and how they could work together. Label where data resides or is transmitted in the system.
3. Use Euclid's algorithm to compute the greatest common divisor of 84 and 58. Show your work!