Homework 1

1. Review of Expanding Polynomials (we had an example in the slides, and showed how to distribute these symbolically and also use an area model)

2. This was not covered specifically in the slides. It's meant to give you practice with interpreting signs and how negatives make signs change when they interact with parentheses.

3. Practice with converting to a percent (there was a tip for this given on the slides).

4. This involves the idea of clearing denominators (something done on Tuesday's slides) and solving an equation where the variable shows up in two places (a strategy that was shown on Tuesday's slides as well)

5. An almost verbatim example of a problem on Tuesday's slides.

6. A similar problem to this was done in Tuesday's slides, but you can't just copy the steps. You have to use the principles that were used in that example. In order to find the percent used, you have to find how much was used, divide it by the total, and then multiply by 100%. Finding how much was used and how much the total is ends up being a different process than in the other example, but it uses the same principles.

7. I believe this is meant to give you practice with modeling. You may be tempted to use a shortcut and combine the 10%s directly. This does work. Try applying the 10% increase and the 10% decrease directly to the salary each year and you should get the right answer. This does not look just like any of the problems on the slides, but it is an example of modeling (that was hopefully something you practiced during class) and the usage of percents.

8. I think this is an easier system of equations than the ones you saw in lecture Tuesday with the area and perimeter. I didn't go over it then because we were short on time, but the problem and solution are in the "boardwork" file and you can see them there if you like.

9. This problem reviews solving an equation for one variable in terms of the others. There was a question like that at the beginning of the lecture slides on Tuesday with a line equation. I pointed out then that you were solving many equations at the same time when you worked on this problem.

10. This is almost exactly the same as the perimeter/area problem from the slides. As mentioned in problem 8, this example is worked out in the "boardwork" file on Gauchospace.

11. You did some substitution in a few of the problems from Tuesday's lecture (and in today's lecture). This problem is raw practice with substitution. Hopefully, after completing this problem you will be much more comfortable with the process, so next time you have to substitute to solve a problem it will be easy and you can just focus on the rest of the problem.