You don’t need to turn in anything for problems 4 and 5 below.

1. Go through the tutorial in chapter 4, reading the entire chapter. Answer the chapter 4 questions listed below. Short answers are sufficient.
   a. question 1
   b. question 2
   c. question 7

2. Provide an analytical solution to problem 2 in chapter 4 using the method of joints.
   a. Compute the force in each member.
   b. Compute the stress in each member.

3. Provide a SolidWorks solution to problem 2 in chapter 4.
   a. Show a contour plot of displacements (plot URES which is the resultant displacement).
   b. What is the displacement in the x-direction where the 10kN and 12kN loads are applied? You will need to plot UX, but you don’t need to show it in your homework.
   c. What is the displacement in the y-direction where the 10kN and 12kN loads are applied?
   d. What is the resultant displacement where the 10kN and 12kN loads are applied?
      Compute this analytically from (b) and (c) and compare to what you got in (a).
   e. Show a contour plot of stress.
   f. How do the stresses in (2b) compare to (3e)?

4. If you don’t already have SolidWorks, come to Bogard Hall 325 today at 3PM. If you are unable to come today, you can install it in Bogard 222. You will need your laptop and your student ID.

5. If you are new to SolidWorks, then you should begin by doing one of the modeling tutorials to get some extra practice. We’ll be creating models during each class, so you will get some practice as we go along. You don’t need to turn in anything for this problem.