Text problems: 3.39, 4.2, 4.7, 4.4 (The answers in the book are slightly off due to rounding, but pretty close).

Non-text problem: You do not have to do this problem! This problem is strictly for studying purposes. Please try it if you have some extra time, or before the next test. I will publish the solution to it with the rest of the solutions to this homework. There is potential extra credit for this problem if you choose, please see item 2.

1. Find the shear stresses in the circular and square members in figure 1. The dimensions are the same as the solution to the non-text problem in HW 4.

2. For 25 points bonus on this homework, demonstrate using a gradient (derivative) analysis, that if you wanted to decrease the shear stress in the rectangular portion of the shaft, you should actually decrease the width and height, not increase them, as logic might suggest. This point illustrates that there can be fundamental differences between the behavior of determinate and indeterminate structures.