SI 301
Assignment 6
Due in class on Thu October 19th

Reading: Sections 8.1, 8.2, 9.1-9.6 of textbook.

1. Problems 6, 7, 8, 9, 14 in section 6.11 of textbook.
2. Problem 2 in section 8.4 of textbook.
3. Problems 2, 3, 5, 7 in section 9.8 of textbook.
4. In a third-price sealed-bid auction, where the buyer with the highest bid buys the item and pays the third highest bid, is bidding your true value always a dominant strategy? Provide a proof of your answer.
5. Consider the following scenarios in a sealed-bid, second-price auction in which you are participating. For each scenario, assume that your true value for the auctioned item is v_{you}. All scenarios are independent.
    a. Right before everyone bids, the auctioneer announces a one-time sale whereby the winner of the auction will receive a 50% discount off the final auction price. How much should you? Explain.
    b. Everyone is feeling lucky and generous and all other participants decided to bid three times their true value. How much should you bid? Explain.
    c. You realize that a particularly aggressive competitor just spied over your shoulder and has seen your bid. Since you haven't yet submitted your bid, you are considering increasing it to a value higher than v_{you}. Is this a good idea? Explain.