HW 9 HONR 209M. Morally DUE Tuesday Nov 26, but will take TUESDAY Dec 3

- 1. (0 points) What is your name? Write it clearly. Staple your HW. When is the final?
- 2. (50 points) Auctions: In class we did that if there was a TIE then there is NO SALE. For this problem in an action if there is a TIE then the people who tied split the cost and split the item. (If the with ONE other person, both pay 1/2 and get 1/2. If the with TWO other people, all three pay 1/3 and get 1/3.) Throughout this problem Alice things the the bids are in $\{0, \ldots, b-1\}$ and Alice thinks the item is worth v.
 - (a) If there is only one other bidder than what should Alice bid to maximize her profit? Show your work.
 - (b) (EXTRA CREDIT) If there are two other bidder than what should Alice bid to maximize her profit? Show your work.
 - (c) (EXTRA CREDIT) If there are n other bidder than what should Alice bid to maximize her profit? Show your work.
- 3. (50 points) Redo the PIRATES problem with the following change: The CAPTAIN gets two votes. Figure out the problem for n = 1, 2, 3, ..., 10.