

HW 8 HONR 209M. Morally DUE Tuesday Nov 19

1. (0 points) What is your name? Write it clearly. Staple your HW. When is the first midterm? When is the final?
2. (50 points) Assume that there IS a discrete 10-cut protocol so that THREE people can produce FIVE pieces, each worth $1/5$ in ALL of their eyes. USE this to produce an envy-free 5-person discrete protocol with a bounded number of cuts. How many cuts does it use? Give the protocol and the advice. For each person show that if they DO NOT FOLLOW the advice they could get $< 1/5$. For each person show that if they DO FOLLOW the advice they cannot envy anyone.
3. (50 points) Say the cheesecake protocol is done with 10 people for a cake with 5 different pieces. Give a scenario where this works REALLY WELL. Give a scenario where this works REALLY BADLY.