Homework 2

Students are welcome to work together, but *every student must write up their own solutions, independently!* I strongly encourage students to use LaTex for writing up their solutions. Please see the course web-page for a template file.

Each question is worth 10 points.

Question 1: When I was a graduate student, I bought a big box of Snickers at Costco, and quickly realized that I couldn't eat all of them. I decided to sell them to the students and faculty in my department. Each Snicker bar cost me \$0.33, but I didn't want to deal with taking and giving coins. I decided instead that for each sale we would play a game that would result in an *expected* payment of \$0.33. No coins would be used, either in deciding the actual payment amount, or in the payment itself (payments were in dollar bills). How would you design the game? (Hint: use your hands!)

Question 2: Exercise 3.6 in the book

Question 3: Exercise 3.7 in the book.

Question 4: Exercise 3.8 in the book. (Note: Part (c) will require the use of a PRF, which we will learn about on 9/13.)