Due October 20, 2010, at the **beginning of section**

1. You are given two options for investing. Which is better? Returns are independent in both cases.

   - **Option 1**: Invest $1000 in each of ten companies. Lose $100 with chance .40 and gain $100 with chance .60.

   - **Option 2:** Invest $100 in each of 100 companies. For each one, lose $10 with chance .4 and gain $10 with chance .6.

2. I play a game with a friend at a party. Unknown to me, he has an unfair die that shows an even number of spots 7 out of 10 times. Each time it rolls even, I pay him $2.50. Each time it rolls odd, he pays me $5. Fill in the blanks below:

   (a) My net gain after 100 rolls is around _____, give or take _____ or so.

   (b) The chance that I come out ahead (have a positive net gain) after 100 rolls is _____.

3. Review problem 11 on page 306(chapter 17)

4. Review problem 14 on page 306(chapter 17)