1. Dr. Crawford has all of your names on slips of paper in a box. She will randomly choose 1 to win a prize. There are 30 students registered for class.

(a). If she draws out one name at random, what are the chances that you will win the prize? What are the chances you will not win the prize?

(b). If she draws out two names (at the same time), what are the chances that you will win? What are the chances you will not win?

(c). If you know that 15 students are sophomores, 11 are juniors, and 4 are seniors and she draws out one name, what are the chances the winner will be a junior? What are the chances the winner will not be a junior? What are the chances the winner will be a senior?

2. If you roll a single die,

(a). What is the chance that you will roll a 1? What is the chance that you will roll a 2? 3? 4? 5? 6?

(b). What is the chance that you will not roll a 2?

(c). What is the chance that you will roll an even number?

3. With your partner, roll the single die as many times as you can (until instructed to stop). Record the number of times you roll each of the numbers 1 through 6.

Number on die	How many times rolled
1	
2	
3	
4	
5	
6	
Total Rolls	

(a). Looking back at question #2(a), you should have said that the chance was 1/6 or 1 in 6 of rolling a 2. Another way of thinking about this number is to consider that for every 6 rolls you expect to roll a 2 once.
So for every 60 rolls, you expect _____ 2's. For every 600 rolls, you expect _____ 2's.

(b). Convert the fraction 1/6 into a decimal.

Based on that result, approximately how many times do you expect to roll a 2 if you roll the die 100 times?
[Hint: Considering your decimal as a percent may help.]

(c). From the table above, how many total times did you roll the die?

Using your answer to part (b), how many times did you *expect* to roll a 2 for that total number of rolls?

(d). How many times did you *actually* roll a 2?

Is it close to your expectation in part (c)?

Convert the fraction $\frac{\text{\# of times you rolled a 2}}{\text{total \# of rolls}}$ into a decimal.

Is this decimal close to the decimal you found in part (b)?