

## HW 9 Due : Wednesday, Oct. 23

- (1) (12.1 Problem 22) A standard deck contains 52 different cards. In how many ways can you select 5 cards from the deck?
- (2) (12.1 Problem 26) Suppose you want to plant a flower bed with four different plants. You can choose from among 8 plants. How many different choices do you have?
- (3) (12.1 Problem 14) A committee of 3 people must be chosen from a group of 10. The committee consists of a president, a vice president and a treasurer. How many committees can be selected?
- (4) (12.1 Problem 18) An amino acid is encoded by triplet nucleotides (three nucleotides). How many different amino acids are possible if there are 4 different nucleotides that can be chosen for a triple?
- (5) (12.1 Problem 16) You have just enough time to play 4 songs out of 10 from your favorite CD. In how many ways can you program your *CD* player to play the 4 songs?
- (6) (12.1 Problem 2) Suppose that you want to investigate the effects of leaf damage on the performance of drought-stressed plants. You plan to use 3 levels of leaf damage and 4 different watering protocols, you plan to have 3 replicates. What is the total number of replicates?
- (7) (12.1 Problem 30) Twelve children are divided up into three groups, of 5, 4 and 3 children, respectively. In how many ways can this be done if the order within each group is not important?
- (8) Extra Practice Problems (These are extra problems for you to practice and you can check the answers at the back of the book)  
Sec 12.1 Problem 1, 13, 15, 17, 21, 25, 29