Section 9.2

1. Determine the number of distinct permutations (with repetition) of the letters of each of the following words.
   (a) LEVEL
   (b) BABBLE
   (c) TEETER
   (d) REWIND
   (e) HIWATHA
   (f) MISSISSIPPI

3. How many 7-digit numbers can be formed from the digits in the following numbers? (a) 4,116,461. (b) 8,555,858.

7. A 10-question multiple choice quiz is known to have 4 questions where the answer is (a), 3 questions where the answer is (b), and 3 questions where the answer is (c). How many possible assortments of answers are there?

9. Seven young boys have moved into a new community and would like to participate in little league baseball. Three teams, namely the Falcons, the Jaguars, and the Panthers, agree to take the 7 new players, with the Falcons taking 3 and the other teams taking 2 each. In how many ways can this be done?

11. The Chair of a University Department is making committee assignments for the coming year. There are 8 faculty members who have not yet received their committee assignments. If there are 4 openings on the Undergraduate Committee and 2 openings each on the Graduate and Personnel Committees, then how many possible committee assignments are there for the 8 faculty members?

13. At a buffet dinner, one of the people at a table (seating 6 people) volunteers to go to the dessert table to bring back a dessert for each person at the table. When he arrives at the dessert table, he learns that he has three choices: apple pie, chocolate cake, and ice cream. How many different choices does he have for desserts to select?

15. Ten people have been selected to receive gift certificates to a restaurant. Two people will receive $200 gift certificates, three will receive $100 gift certificates, and five will receive $50 gift certificates. In how many ways can these gift certificates be distributed?

17. A total of 12 different computer science books are to be given to the top 3 participants in a programming contest. How many ways can the books be distributed if the person finishing first gets 6 books, the person finishing second gets 4 books, and the person finishing third gets 2 books?