Discrete Mathematics 21-228
Assignment #2
Due Thursday, May 20

1. Read sections 1.3 and 1.5-1.8 in the textbook.

2. Page 23, problem 1.8.20.

3. Page 23, problem 1.8.26.

4. A craftsman has 23 different colored beads. He has enough string to make a bracelet with 12 beads on it. How many different bead arrangements are possible?

5. How many sequences of p 1's and q 0's have the property that no two adjacent positions contain a 1? Hint: you might want to add a 0 to each end of the sequence.

6. Page 24, problem 1.8.33. Hint: You can give a combinatorial justification of this identity (i.e. use the fact that the quantity on the left hand side is the number of k-subsets of an n-set. Show that, interpreted properly, the right side counts this quantity as well.)