## Math 415/515 HW 5: Due Wednesday, October 19th

Chapter 2: 21, 26, 28 (b), 32, 33, 34, 37, 38, 43, 45, 55

For those in 515: Also Chapter 2: 48, 49, and prove the following: Let S be a set of size n. Prove that the number of subsets of S with an even number of elements is equal to the number of subsets of S with an odd number of elements. (Hint: use the binomial theorem in a weird way.)