## MATH 113: DISCRETE STRUCTURES HOMEWORK FOR MONDAY WEEK 5

*Problem* 1. Problem 3.1.1 from *DM:EB*.

*Problem* 2. Consider the binomial theorem and the equation  $(1+x)^m(1+x)^{n-m} = (1+x)^n$ . Examine the coefficient of  $x^k$  on either side of this equation to derive an interesting identity.