MATH 113: DISCRETE STRUCTURES
HOMEWORK DUE WEDNESDAY WEEK 4

Problem 1. Use the binomial theorem to express 3^n as a sum of powers of two times binomial coefficients.

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 and derive an interesting identity.