

Math 491, Problem Set #16
(due 11/20/03)

1. (a) How many lattice paths from $(0, 0)$ to (m, n) remain the same when you rotate them by 180 degrees about $(\frac{m}{2}, \frac{n}{2})$? Prove your answer.
2. (a) How many lattice paths from $(0, 0)$ to (n, n) remain the same when you flip them across the diagonal joining $(n, 0)$ and $(0, n)$? Prove your answer.
(b) What is the sum of the q -weights of these lattice paths? Conjecture an answer.
(c) Why is there no part (b) for question 1?