Math 192r, Problem Set #15
(due 11/15/01)

1. Using the combinatorial definition of the determinant, prove that for all n-by-n matrices A, B, $\det(AB) = \det(A)\det(B)$.

2. Use Lindstrom's lemma, the interpretation of domino tilings as routings, and a computer, in order to count the domino tilings of an 8-by-8 square, as well as the domino tilings of an 8-by-8 square from which two (non-opposite) corners have been removed.