1024-05-56   **Michael Reid*** (`reid@math.ucf.edu`), Department of Mathematics, University of Central Florida, Orlando, FL 32816. *Counting tromino tilings and parity.*

The work of P.W. Kasteleyn and others has generated a lot of interest in finding arithmetic significance in the counts of tilings by dominoes and other dimers. In constrast, not much is known about tiling with trominoes. We count here the number of tilings of certain regions by trominoes and make several conjectures about the parities of such counts. Some special cases and partial results have been proven. (Received December 17, 2006)