1085-05-7 **Matt Katz*** (`katz@math.psu.edu`). *Quotient Diagrams of Partitions.*

In 1986, J. Propp proposed the problem of counting the number of quotient diagrams of partitions. A quotient diagram is the result of "modding out" a partition by an $a \times b$ lattice. In this talk, we will see outlines of proofs of the 2×2 and 2×4 cases in which we get generating functions for each. (Received April 08, 2012)