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**Ariel R Levavi\*** (alevavi@andrew.cmu.edu), 310 West 72nd Street, New York, NY 10023. *Tree Pegging*.

In the game of pegging we consider each vertex on a graph as a hole into which a peg can be placed. A pegging move is performed when one peg jumps over another peg, and the peg that has been jumped over is removed from the graph. We define the optimal-pegging number and the pegging number as the size of the smallest distribution needed to reach all the vertices in a graph, and the smallest number of pegs needed to reach all the vertices in a graph no matter what the distribution, respectively. We find the pegging numbers and optimal-pegging numbers for various types of trees, including the complete binary tree, the complete infinitary tree, the caterpillar, and the lobster. (Received September 17, 2007)