

Extra Credit Activity
MAT 300, Spring 2004
April 8, 2004

Prove the conjecture below. Your proof must be typed and received no later than April 29, 2004. Partial credit will be awarded but only for papers that are typed and clearly written. Your proof will be graded for clarity as well as completeness. The maximum credit possible will be 20 points towards your final grade point total. You are encouraged to bring drafts to office hours for comment prior to or on April 27, 2004.

Feel free to look back at work done in class and on the homework concerning the tiling of a checker board with dominos; however, any facts you need other than that induction is a valid method of proof must be “reproven.” If you are unsure, ask!

Conjecture: If a $2n \times 2m$ ($n, m \in \mathbf{N}$) checker board has any one red square and any one black square covered with a single square tile on each, then the remaining checker board can be tiled with standard 2×1 dominos.