

DYNAMIC ONE-PILE BLOCKING NIM

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Abstract

The purpose of this paper is to solve a class of combinatorial games consisting of one-pile counter pickup games for which the number of counters that can be removed on each successive move changes during the play of the game. Both the minimum and maximum number of counters that can be removed is dependent upon the move number. Also, on each move, the opposing player can block some of the moving player's moves. The number of blocks also depends upon the move number. In a later paper, these same variables will depend upon both the move number and the pile size.