

Grid Domination on Hexagon Boards

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A grid on a cell of a gameboard attacks all neighboring cells. The domination number counts the minimum number of grids such that each cell of a board is occupied or attacked by a grid. For square boards (chess boards) the domination number has been determined in a series of papers. Here we start to consider grids on hexagon boards $B(n)$ as parts of the euclidean tessellation by congruent regular hexagons where $B(1)$ is one hexagon, $B(2)$ consists of the three hexagons around one vertex, and $B(n)$ for $n \geq 3$ consists of $B(n-2)$ together with all hexagons having at least one hexagon in common with $B(n-2)$. - An upper bound is presented for the grid domination number and exact values are determined by computer for small n .
(Common work with Hauke Nienborg.)