

7. An $m \times n$ rectangular board is given where m, n are odd integers. The board is covered with 2×1 dominoes, so that no two dominoes overlap and only the bottom left square of the board is empty (i.e. not covered by any dominoes). At any point in time it is allowed to slide a domino so that it covers an empty square and still stays on the board, and none of the other dominoes are moved during this process. As a result, a new square becomes empty. Prove that after several such moves it is possible to make any corner square on the board empty.