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Arthur L Gershon* (arthur.gershon@case.edu). *On the Number of Restricted Strip Arrangements on Square Chessboards.*

We are interested in counting the number $T(m, n)$ of ways to place $1 \times k$ strips on a rectangular lattice or chessboard of dimension $m \times n$ so that there is at most one horizontal strip in each row and at most one vertical strip in each column. Previous work have analyzed the case when one side length (say, m) is held fixed and the other (say, n) tends to infinity. Another case of interest, however, is when both side lengths $m = n$ tend to infinity together in equal measure. By taking logarithms in the latter case, we can use convexity and other analytic properties to deduce $\log(T(n, n)) = 4n \log n - 2n \log 8 + O(n^{2/3})$. (Received September 18, 2019)