Let $\mathbf{M_n}$ be the set of $n \times n$ matrices, $M = (m_{ij})$, $m_{ij} \in \mathbf{N} \cup \{0\}$ $m_{ij} = 0$ if $j > i+1$ (that is, all elements above the superdiagonal are equal to zero), such that the q-th row and column each sum to T_q, the q-th triangular number. We show that $|\mathbf{M_n}|$ is equal to $C_1 C_2 \cdots C_n$, where C_n is the n-th Catalan number. The proof of this result, which is known as the Chan-Robbins-Yuen theorem, is of special interest, as no combinatoric proof was known previously.