## [lex55] Capacitor circuit II

Consider a capacitor circuit of $n^{2}$ capacitors, each with capacitance $C$, constructed according to the pattern shown for $n=1,2,3$. Each column has $l$ capacitors, where $l$ varies between 1 and $n$.
(a) Determine the equivalent capacitances $C_{n}$ for $n=1, \ldots, 4$.
(b) What is the limiting capacitance $C_{\infty} \doteq \lim _{n \rightarrow \infty} C_{n}$ ?


## Solution:

