pumping lemma

An infinite regular language can be pumped

any sufficiently long string in such a language
Finite state machine can be used!

Beyond the state count,

A* → new mean ∞
Therefore, if \( L \) is a language that cannot be pumped, \( L \) is not regular.
Count 0 to 10 is not possible.
\[ c_\theta (x) = \text{sum of } \text{all } x \text{ with } \theta \]
\[ x y z = S = \sum_{i \leq 0} \frac{1}{a} \]
\[ \left\{ \begin{array}{l}
\{ 1 \} = \{ 1, \} = \{ 1, 2 \} = \{ 1, 2, \ldots \} = 1 - \infty \\
\{ a + bi \} \quad | \quad i \geq 0
\end{array} \right. \]