Lecture #8: Nonregular Languages, Part One
What Will Happen During the Lecture

Review

The lecture presentation will begin with a ***brief*** review of the material in the preparatory video and documents for this lecture — and students will have the chance to ask questions about this.

Problem To Be Solved

The "Pumping Lemma for Regular Languages", and its use to prove that certain languages are *not* regular, will be discussed. This result will be used to solve the following problem.

"Let $\Sigma = \{\mathtt{a}\}$. Prove that the language

$$L = \{\mathtt{a}^{\left(n^2\right)} \mid n \in \mathbb{N}\} \subseteq \Sigma^\star$$

is not regular."