

Automata and Formal Languages Quiz

姓名：

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Problem *Let $G = (V, \Sigma, R, S)$ be the following grammar. $V = \{S, T, U\}$; $\Sigma = \{0, \#\}$; and R is the set of rules:*

$$\begin{aligned} S &\rightarrow T \mid U \\ T &\rightarrow 0T \mid T0 \mid \# \\ U &\rightarrow 0U00 \mid \# \end{aligned}$$

1. *Describe $L(G)$ in natural language.*
2. *Is $L(G)$ regular? Prove your assertion.*