

**University of Central Florida
School of Computer Science
COT 4210 Fall 2004**

**Prof. Rene Peralta
Homework 7 (optional)**

Due date: Dec. 3, in class

1. Exercise 4.3.
2. Exercise 4.5.
3. Exercise 5.2.
4. Exercise 5.3.
5. Exercise 5.10.
6. Exercise 5.11.
7. Consider the Turing machine M_2 of figure 3.4. The tape alphabet Γ is $\{0, x, \sqcup\}$. Give rules R of a Semi-Thue system such that a word $w \in \{0\}^+$ is in $L(M_2)$ iff $w\sqcup \Longrightarrow q_{accept}$. For simplicity, please use the rules $\gamma q_{accept} \longrightarrow q_{accept}$ and $q_{accept}\gamma \longrightarrow q_{accept}$ for all $\gamma \in \Gamma$.