CS 381	**Introduction to Theory of Computing**	QUIZ 10
SUMMER 2000		JUNE 15, 2000

Write your name in the space below. Failing to do so may result in not recording the points you earn for this quiz.

1. Consider the CFG given below:

$$\begin{array}{lcl} S & \rightarrow & ABC \\ A & \rightarrow & Sa \mid \varepsilon \\ B & \rightarrow & b \mid \varepsilon \\ C & \rightarrow & Cc \end{array}$$

   (a) How many productions does this grammar have?

   (b) What is the start symbol of this grammar?

   (c) Derive strings *aaccc* and *aabccc*. Number the productions and show what production you applied in each step!

2. (2 points) Give an example of an ultimately periodic set such that any non-zero natural number is a period for it.