CS 173, Spring 2015
Examlet 13, Part A

NETID:	

FIRST:	LAST:

Discussion: Monday 9 10 11 12 1 2 3 4 5

(15 points) Recall that a phone lattice is a state diagram representing sequences of letters. Each edge in a phone lattice has a single letter on it. In a "deterministic" state diagram, if you look at any state s and any letter a, there is never more than one edge labelled a leaving state s.

A group of Psychology researchers need to generate text consisting of one or more repetitions of "eat X," where X is one of the words "cherry", "curry", "berry" and "cheese." The lattice should allow one or more spaces (written as □) between each pair of words. The researchers weren't very clear about whether spaces were allowed at the start/end of the text, so you can do whatever you find easiest to implement.

Draw a deterministic phone lattice that models these text sequences, using no more than 19 states and, for maximum credit, no more than 16.

Solution: