Homework 2 (due 3/10/2003)

1. Use a serializer to implement the following critical section: there are two kinds of threads, red and green. Up to three threads can be in the critical section at any time, but not all can be the same color. (Assume that the semantics of the serializer are that only the first thread in a queue is awaken/checked every time a thread leaves the serializer.)

2. For each of the following, is the path expression on the left equivalent to that on the right, based on the meaning we assigned to path expressions in class? If not, give an example execution that satisfies one path expression but not the other.

   ```
   path {foo} ; {baz} end =? path {foo ; bar} end
   ```

   ```
   path foo end =? path foo ; foo end
   ```

   ```
   path {foo} end =? path foo end
   ```

   ```
   path {foo} + {bar} end =? path {foo + bar} end
   ```