

**CS520—Spring 2013—Homework 10**  
**Wednesday April 10**

**Question 1**

Write pseudo code for the function `thread_mutex_unlock`.

**Question 2**

Write pseudo code for the function `thread_cond_signal`.

**Question 3**

Write pseudo code for the function `thread_join`. (The thread calling this function would block until the specified thread terminates.) Also provide pseudo code for what must happen at thread termination to support `thread_join`. Where would the code to be done at thread termination be placed in the rest of the code implementing the threads package? Describe any modifications that would need to be done to the data structures used to implement threads.

**Question 4**

How would the performance differ between using a thin lock and using a POSIX threads mutex, if you expected to have a high degree of contention for the lock?