

c. Why would we want to use (kernel-level) threads at all instead of just using multiple processes?

2. **Locks.** Locks are basic OS primitives used to support synchronization between threads.

a. What are the two essential operations of a lock and what (briefly) do they do?

b. What are **atomic instructions** (such as Test&Set) and why are they needed to support locks (assuming we aren't disabling interrupts)?