CST 334: Operating Systems

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# OSTEP Chapter 28: Locks

**Instructions**. Read OSTEP chapter 28 (sections 28.10-28.16 are optional) and answer the following questions by editing [chap28.txt](https://drive.google.com/file/d/1FmyO9rGpdnw_SekL3rZLN-VHLYHDLh1F/view?usp=sharing).

1. (True/False) Dekker’s mutual exclusion algorithm does not use a test-and-set instruction.
2. What state is a lock in after it is initialized? a) free b) held c) after initialization the lock's state is not defined
3. How many locks can be defined in a single pthreads program? a) at most 1, b) at most 2, c) more than 2
4. Suppose a thread B acquires a lock, and then another thread B waits for, but can never obtain the lock. Is the lock fair? a) no -- if it was fair then B would eventually get the lock. b) yes -- the lock is fair c) we can't say for sure -- fairness doesn't concern the situation where one thread doesn't release a lock.

**Submission**: Submit your edited chap28.txt on iLearn.

**Grading**: Each problem is worth 10 points.