You can preview this quiz, but if this were a real attempt, you would be blocked because:

This quiz is not currently available.

Question 1
Suppose \( x \) and \( y \) are shared variables and two threads both execute the code sequence:

\[
\text{lock}(L1);
\text{lock}(L2);
\text{temp} = x + y;
\text{unlock}(L2);
\text{unlock}(L1);
\]

Will deadlock occur?

Select one:
- a. None of the other answers
- b. Sometimes
- c. Yes
- d. No

Question 2
Suppose \( x \) is a shared variable initialized to 0 and two threads both execute the statement \( x++ \); what are the possible values for \( x \) afterwards taking into account all possible thread interleaving?

Select one:
- a. 3
- b. 1
- c. 2
- d. 1 and 2
- e. None of the other answers

Question 3
Suppose \( x \) is a shared variable initialized to 0 and two threads both execute the statement \( x++ \); both within a critical section protected by a lock. What are the possible values for \( x \) afterwards?

Select one:
- a. 3
- b. 1
- c. None of the other answers
- d. 2
- e. 1 and 2

Question 4
What is meant by false sharing as applied to cache memory?

Select one:
- a. When variables are declared as shared but are not shared.
- b. When a block (line) in a cache is required by different processors but not the same bytes in the block.
- c. When two processors shared the main memory but have different caches.
- d. When a local variable has an alias.
- e. None of the other answers