

Assumption: all variables originally hold the value 0.

a) Consider the following sequence of operations:

P1: W(x)1      W(x)3

P2:              W(x)2

P3:              R(x)3 R(x)2

P4:              R(x)2 R(x)3

Is this execution causally consistent? Add or modify an event to change the answer.

b) Consider the following sequence of operations:

P1: W(x)1              W(x)3

P2:              R(x)1              R(x)1              R(x)3

Is this execution strictly consistent? Add or modify an event to change the answer.

c) Consider the following sequence of operations:

P1: W(x)1      W(x)3              S

P2:                              R(x)3    S                              R(x)1

Is this execution weakly consistent? Add or modify an event to change the answer.

d) Consider the following sequence of operations:

P1: L              W(x)1              W(x)3    U

P2:                              L              R(x)3              U              R(x)1

Is this execution release consistent? Add or modify an event to change the answer.