Mikhail Mayers

1.

a. yes, they will always make a mutex, just not a very useful one

b. The thr\_join never comes back, it checks once and goes asleep.

c. It’s not fair because it will only check once.

2.

a. No, P2 eventually releases R1 and R2 and so P1 can eventually acquire R1 and finish.

b. No, P2 eventually releases R2,and R1 can finish.

c. Again, eventually P2 releases R1 and R2, so eventually R1 can grab both resources and finish. If P1 continues holing on to resurces and never releases, P1 could eventually cause a deadlock.

3.

Semaphore: =1

IF Car & Train OR Train(alone) approach Track

THEN Train:

Car is Blocked

Train Takes Crossing

Train Releases when finished, Car unblocked

ELSE

THEN CAR:

Train is Blocked

Car Takes Crossing

Car Releases when finished, Train unblocked

4.

a. 876 msec

b. 360 msec

c. 348 msec