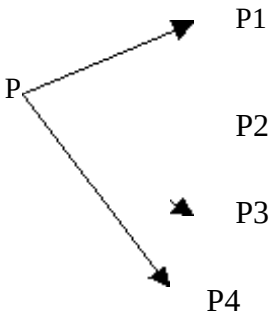
SYNCHRONIZATION PROBLEM SAMPLE (2)

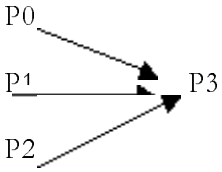
Processes 0, 1, 2, 3, 4 are executing concurrently.
Process 1, Process 2, Process 3 and Process 4 must start their execution **after** execution of Process 0 ends.
There is no enforcement of order between the executions of Process1, Process 2, Process3 and Process 4.

a) Implement the required synchronization using minimum number of binary semaphores. Give the initial value of each semaphore.
b) Implement the required synchronization using minimum number of counting semaphores. Give the initial value of each semaphore.



Processes 0, 1, 2, 3 are executing concurrently.
Process 3 must execute AFTER processes P0, P1, P2 finish their execution.
There is no enforcement of order between the executions of Process0, Process1, Process2.

c) Implement the required synchronization using minimum number of binary semaphores. Give the initial value of each semaphore.
d) Implement the required synchronization using a minimum number of counting semaphore. Give the initial value of each semaphore.



Note:
Consider that processes are executing concurrently, each on a different CPU.

P 0	P1	P2	P3