HW#3. Locks

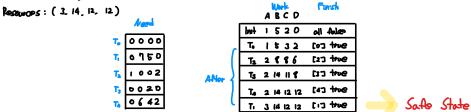
1. (3p) Explain the situation that the mutual exclusion is violated if *sem_wait()* and *sem_post()* are not atomic. (A counter-example would be enough)

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2. (2p) Banker's algorithm. Consider the following system state.

		Allocation	Max	Available
		ABCD	ABCD	ABCD
TI responses (0 4 2 0)	T0	0012	0012	1520
	T1	1000	1750	
	T2	1354	2356	
	Т3	0632	0652	
	T4	0014	0656	

a. Is that system safe? If so, show the order of task execution.



b. If T1 requires resource allocation (0, 4, 2, 0), can it be approved immediately?

