

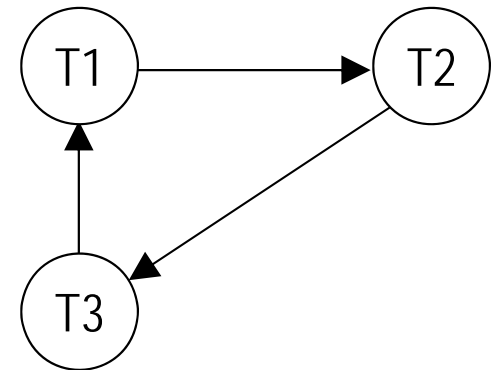
Extra Practice

- Would the following schedule produce deadlock?

$w_1(A)$; $w_3(B)$; $r_3(C)$; $r_2(D)$; $r_1(D)$; $w_1(D)$; $w_2(C)$; $r_3(A)$; $w_2(A)$

- assume: no update locks;
a lock for an item is acquired just before it is first needed

T_1	T_2	T_3
$xl(A)$; $w(A)$		$xl(B)$; $w(B)$ $sl(C)$; $r(C)$
$sl(D)$; $r(D)$ $xl(D)$ denied; wait for T_2	$sl(D)$; $r(D)$	
	$xl(C)$ denied; wait for T_3	
		$sl(A)$ denied; wait for T_1



cycle – deadlock!