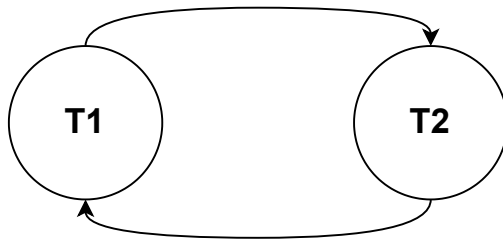
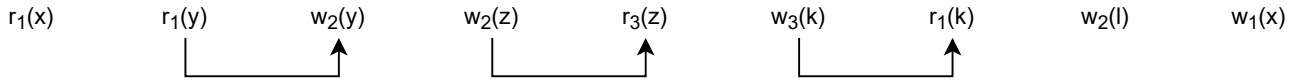


Conflicts:
 $r_1(x) w_2(x)$
 $r_2(x) w_1(x)$

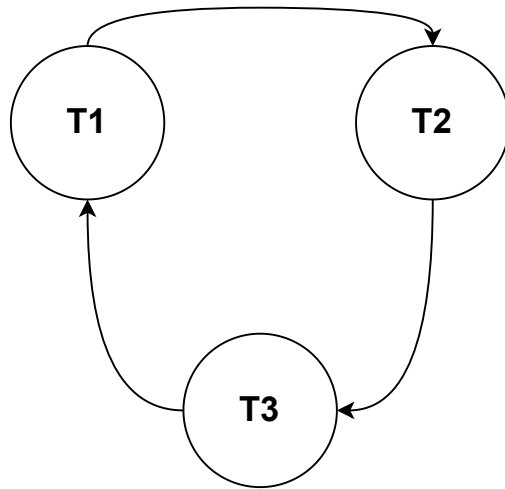


Cycle? Yes
Serializable? Yes

S1: $r_1(x)$ $r_1(y)$ $w_2(y)$ $w_2(z)$ $r_3(z)$ $w_3(k)$ $r_1(k)$ $w_2(l)$ $w_1(x)$

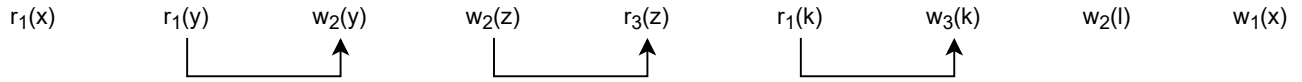


Conflicts:
 $r_1(y)$ $w_2(y)$
 $w_2(z)$ $r_3(z)$
 $w_3(k)$ $r_1(k)$

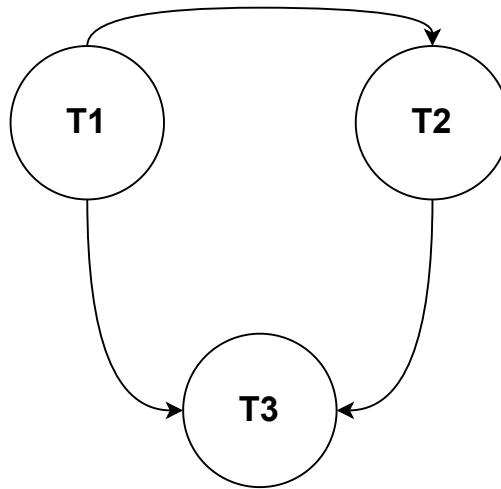


Cycle? Yes
Serializable? No

S1: $r_1(x)$ $r_1(y)$ $w_2(y)$ $w_2(z)$ $r_3(z)$ $w_3(k)$ $r_1(k)$ $w_2(l)$ $w_1(x)$



Conflicts:
 $r_1(y)$ $w_2(y)$
 $w_2(z)$ $r_3(z)$
 $r_1(k)$ $w_3(k)$



Cycle? No
Serializable? Yes

An equal serial order: T1, T2, T3