《数据库概论》第三次课后作业

题目：

1. The following is a sequence of undo/redo-log records written by two transactions T and U:

   <START U>

   <U, A, 10, 11>

   <START T>

   <T, B, 20, 21>

   <U, C, 30, 31>

   <T, D, 40, 41>

   <COMMIT T>

   <U, E, 50, 51>

   <COMMIT U>

   Describe the action of the recovery manager, including changes to both disk and the log, if there is a crash and the last log record to appear on disk is:

   (a) <START T>

   (b) <COMMIT T>

   (c) <U, E, 50, 51>

   (d) <COMMIT U>

2. 请考虑下面两个事务：

T1: read(A);	T2: read(B);
read(B);	read(A);
if A = 0 then B := B + 1;	if B = 0 then A := A + 1;
write B;	write A.

请给事务 T1 与 T2 增加封锁和解锁指令，使它们遵从两阶段封锁协议。这两个事务的执行会导致死锁吗？