Math 4853
Homework Assignment #14
due on Thursday, April 21

**Problem 1.** Every knot can be oriented (or given a direction) in one of two ways. (See page 16 of Cromwell’s book.) If $K$ is a directed knot then $-K$ denotes the oppositely directed knot. A knot is **reversible** if its two orientations are the same. (That is, there is a sequence of elementary Reidemeister moves and planar isotopies taking $K$ to $-K$.)

Show that the trefoil knot (either right or left handed) is reversible by using Reidemeister moves and planar isotopies. Clearly indicate the successive types (I, II or III) of moves that you use.