

**Math 309: Introduction to knot theory**  
**Assignment 6, due Friday November 29 by 10:59 pm.**

1. Let  $T_{n,2}$ , for odd integers  $n > 0$ , be a 2-stranded torus knot (this family includes  $3_1, 5_1 \dots$ ). Give a formula for the Alexander polynomial  $\Delta_{T_{n,2}}$ .

2. Prove that the following knot has trivial Alexander polynomial:



3. Using the diagram given in the knot table, compute the linking form for the knot  $7_4$ . Using this, calculate the Alexander polynomial.