Math 4096 Homework 10

Due Thursday, November 17

1. Compute the Jones polynomial $V(J\#K)$, where J is the left-handed trefoil and K is the Hopf link. (See Figure 6.34, a).

2. How does the polynomial in Question 1 relate to $V(J)$ and $V(K)$? Come up with a conjecture about how the Jones polynomial behaves under connected sums.

3. Exercise 6.22.

4. Let K be an alternating knot, whose reduced alternating diagram has n crossings. Assuming that n is odd, prove that K is not the same knot as its mirror image K^*. *Hint:* Use the statement of Exercise 6.22.