MATH 495: KNOT THEORY, HOMEWORK 3

CLASSICAL INTEGER INVARIANTS

Due in class, Thursday, 2/20

Problems (to turn in).

(1) Give a construction of a knot that has a non-trivial mod 101 labeling.
(2) Find the number of mod 7 labelings of the knot 5_2.
(3) Find a knot that minimizes crossing number over all 3-bridge knots. Use the knot tables and theorems from class to prove you found a minimizer.
(4) If K and J have bridge number 2, prove that $K\#J$ has width 14.