

Math 732: Knot Theory
Asst. 9, due Th., 4/7

Problems to think about, but not submit

- Adams 4.1, 4.2, 4.5, 4.7, 4.9, 4.13, 4.15

Problems to submit

You must submit 7 of the following; clearly indicate which ones you want me to grade. The first 5 are required. You are welcome to submit any others that you want me to provide feedback on.

1. (required) Show that if $b(K) = 1$ then K is the unknot.
 2. (required) Find the bridge number of your knots. For each, draw a diagram with the minimal number of bridges (ideally a la Cromwell Fig. 4.13).
 3. (required) Adams 4.18
 4. (required) Adams 4.19
 5. (required) Adams 4.20
 6. Show the definition of bridge number as minimal number of height maxima (among all heights and all curves in a knot class) is equivalent to the original definition we gave.
- 7-10. Adams 4.3, 4.6, 4.10, 4.16