Homework 2

Knot Theory - Atkinson

Due on Friday, February 2.

Remember to follow the guidelines given in the first assignment.

(1) Compute the linking numbers of the three 6–crossing links in the knot table. They're on pages 287 and 288.

(2) The Borromean rings have the property that removing any one of the components yields a 2–component unlink. Find a 4–component analogue to the Borromean rings. Find an n–component analogue for any $n \geq 3$.

(3) Use tricolorability to show that the Whitehead link and 6_3^2 are distinct links. If one of the links is not tricolorable, be sure to give a complete argument as to why it is not.

(4) Adams, Exercise 1.25

(5) Adams, Exercise 1.27.