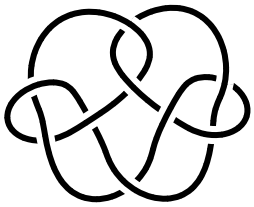
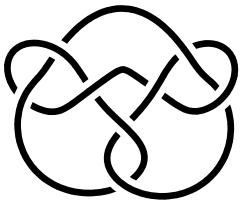
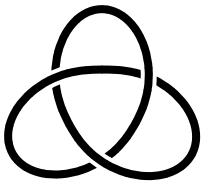


Knot Like The Others

Ryan Hansen

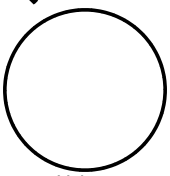




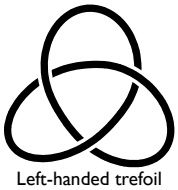
http://www.knotplot.com

Projections

Right-handed trefoil



Unknot



Left-handed trefoil

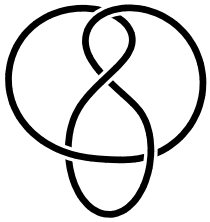


Figure-8 knot

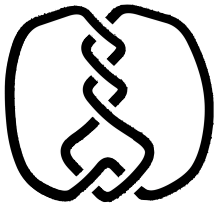


Figure-8 knot

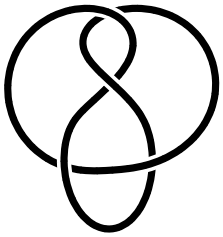


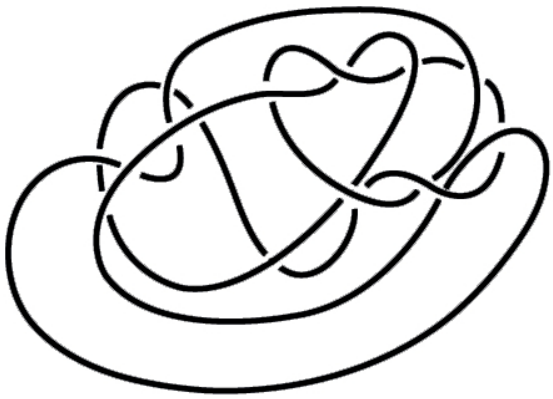
Figure-8 knot

Unknot Or Knot?

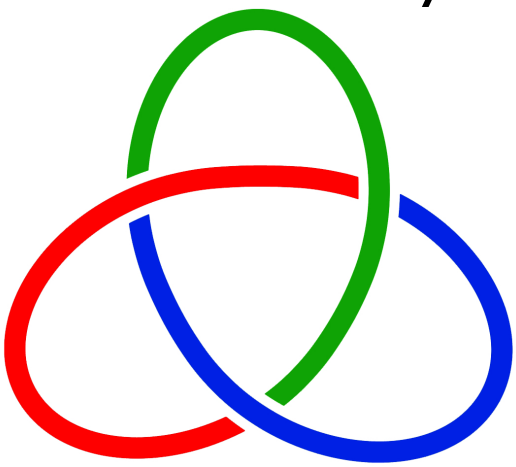
Reidemeister Moves
And "Clean Up"

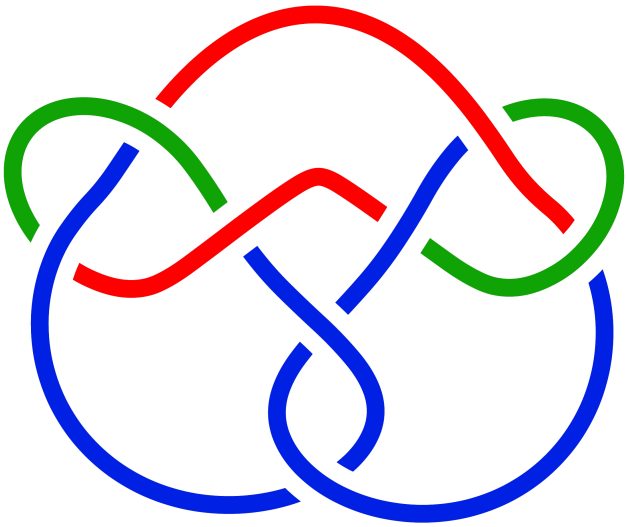
Easy Right?

Not Really...

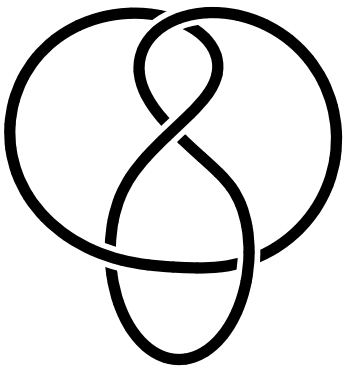


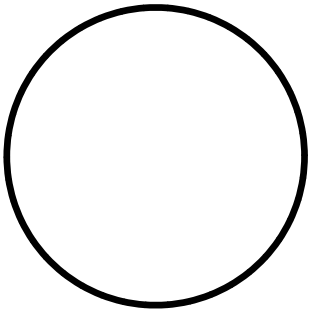
Tricolorability



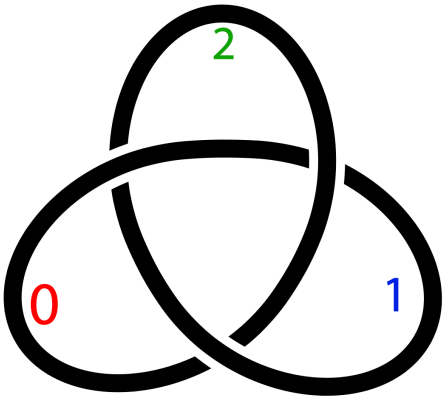


What About These?



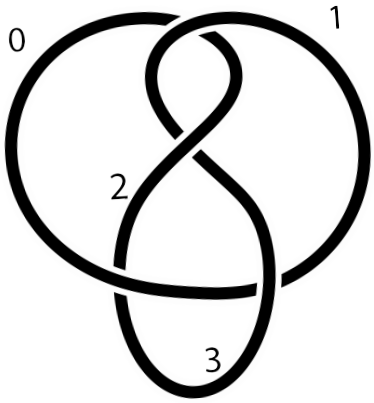


P-Colorability

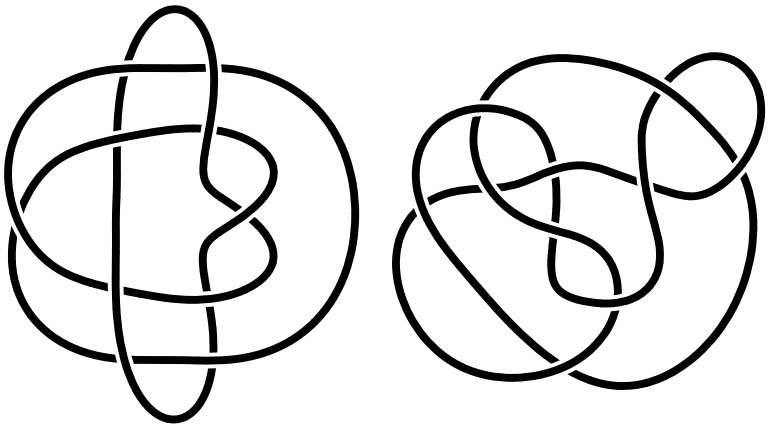


$$2x \equiv y + z \mod p$$

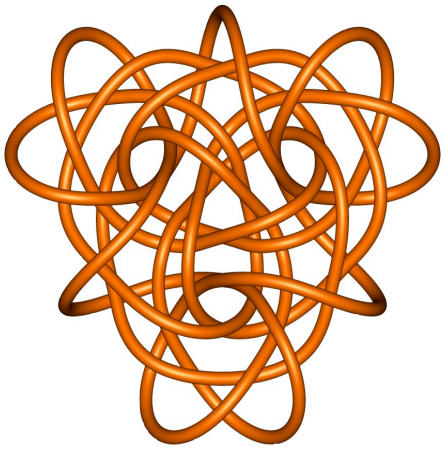
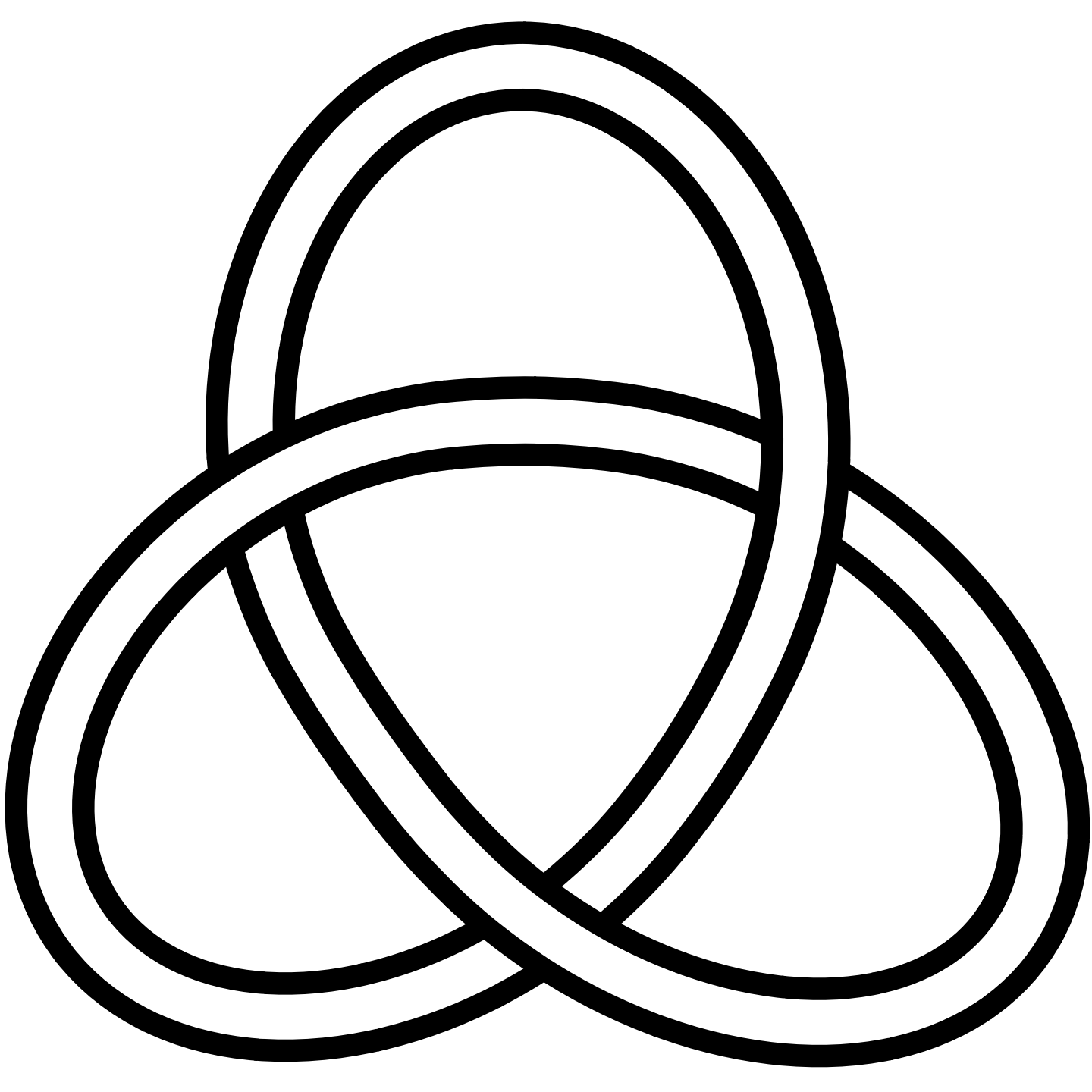
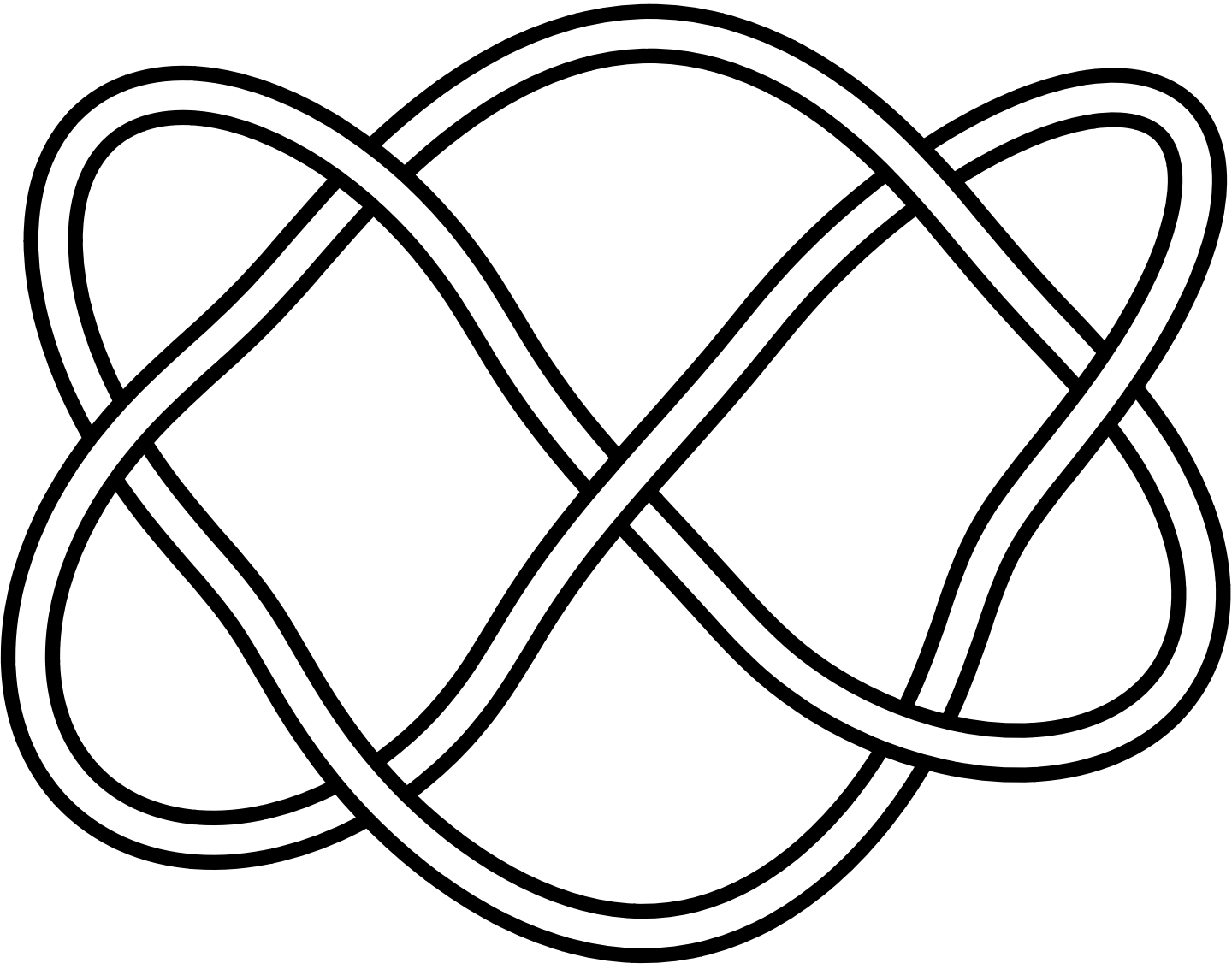
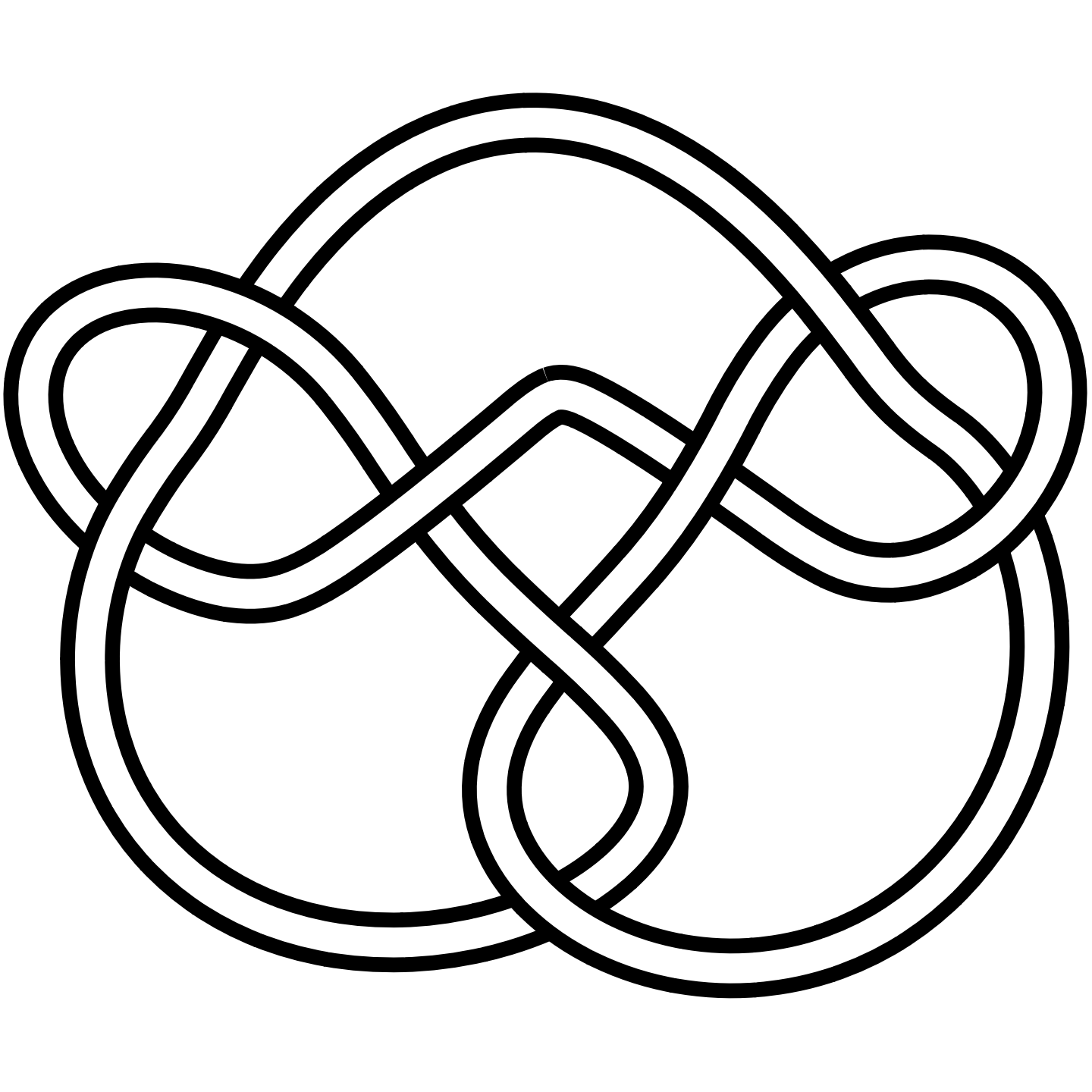
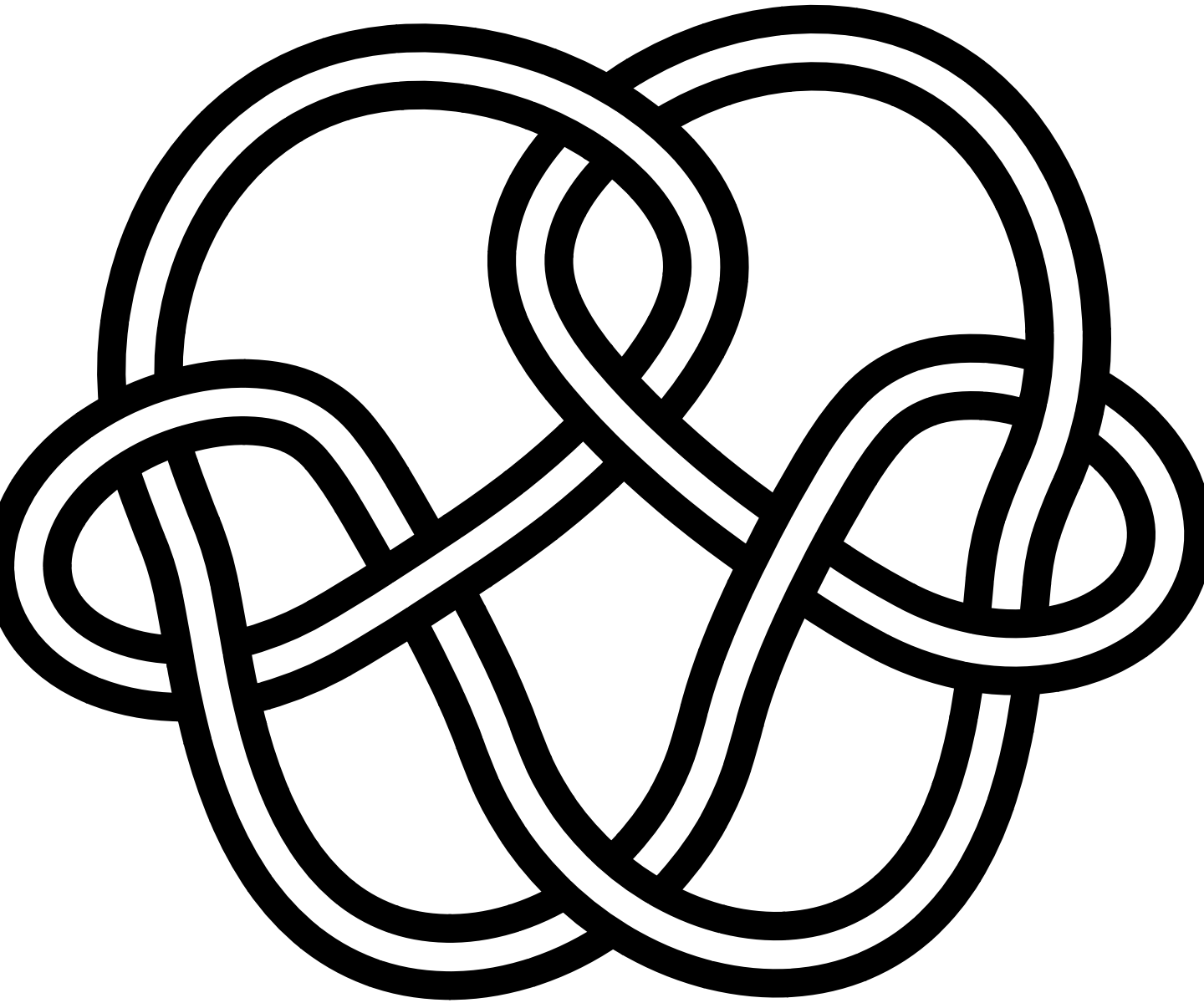
P-Colorability



Perko Pair



Open problems for p-colorability

- Is every knot p-colorable for some prime p?
- Find a relationship between the number of crossings and the largest prime allowing a p-coloring?
- If a knot is p-colorable for what other numbers q is it also q-colorable?
  (q=kp, but what others?)

Thanks!