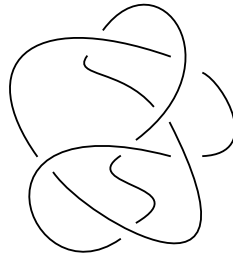
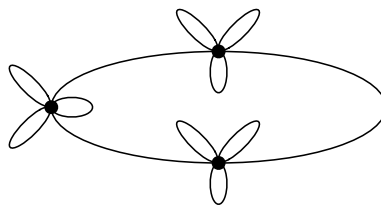


# CS E6204 Exercise Set 1

1. Draw the Reidemeister moves that transform this knot projection into an alternating projection.



2. Orient the given knot and draw the Seifert circles.
3. Calculate the genus of the corresponding Seifert surface.
4. Calculate the maximum genus of the following graph.



5. Draw two disjoint spanning trees in the graph  $C_4 \times C_4$ .
6. Prove that the genus distribution of  $K_{3,3}$  is  $(0, 40, 24)$ .