

Short presentations for Topology II class

1) Definition of knots and links and Reidemeister moves.

2) Wirtinger presentation for the fundamental group of a knot (Can be taken from Dale Rolfsen "Knots and Links")

3) HNN extensions of group and how they appear in van Kampen theorem

4) Prove the general lifting lemma 79.1

5) Prove that the space depicted in exam 1 does not strongly deformation retract to a point

6) Definition of an Culler-Vogtmann outer space. See "What is... Outer Space" by Karen Vogtmann in Notices of AMS

7) Explain the details of an example of a space that does not admit a universal cover (Lemma 80.4 and Example 1 right after).

8) Euler Characteristic of a surface and its application to the classification of compact connected surfaces theorem

9) Compute simplicial homology of Klein Bottle