1. Use the Euler characteristic and orientability to identify the equivalence class of each of the surfaces 2.16.1X – 2.16.4X. You don’t need to draw pictures for these, although it may help you to determine $m$.

2. Choose triangulations for the Möbius band and the “double Möbius band.” Use these triangulations to verify that the surfaces defined in 2.16.5X are the projective plane and the Klein bottle, respectively.

3. Verify that the triangulation of the surface in 2.16.6X defines a sphere.

4. Verify directly the assertion in 2.16.7X that if $M_2$ is obtained from $M_1$ by identifying “opposite” simplexes and $\chi(M_1) = 2$, then $\chi(M_2) = 1$. 