

1. Text: 1.20
2. Text: 1.17
3. Describe the isometries of the standard Klein bottle.
4. Text: 2.4
5. Show that if a surface presentation on one face has a twisted pair, then its realization is not orientable.
6. Identify the following surface:  
$$\langle S | abc, bde, dfg, fhi, haj, c^{-1}kl, e^{-1}mn, g^{-1}ok^{-1}, i^{-1}l^{-1}m^{-1}, j^{-1}n^{-1}o^{-1} \rangle$$
where  $S = \{a, b, c, d, e, f, g, hi, j, k, l, m, n, o\}$
7. Show that the octahedron can be obtained from the tetrahedron by elementary subdivisions but that the icosahedron cannot be.