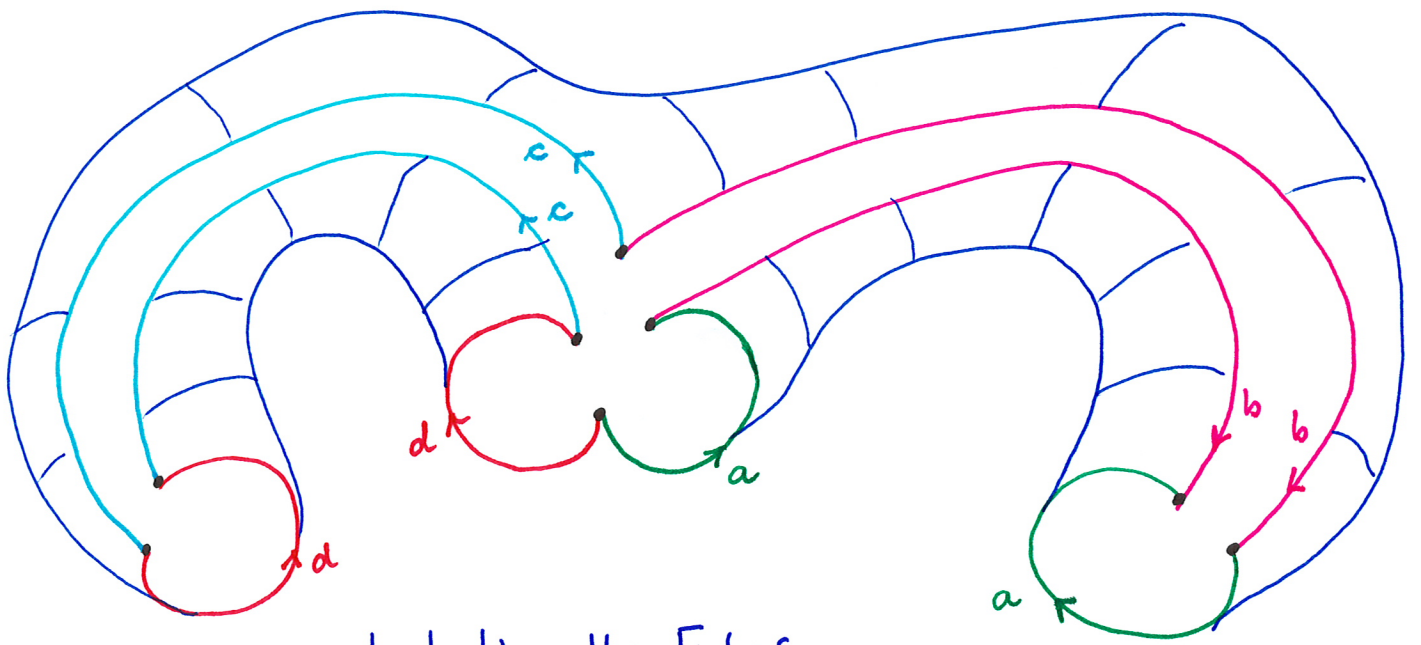
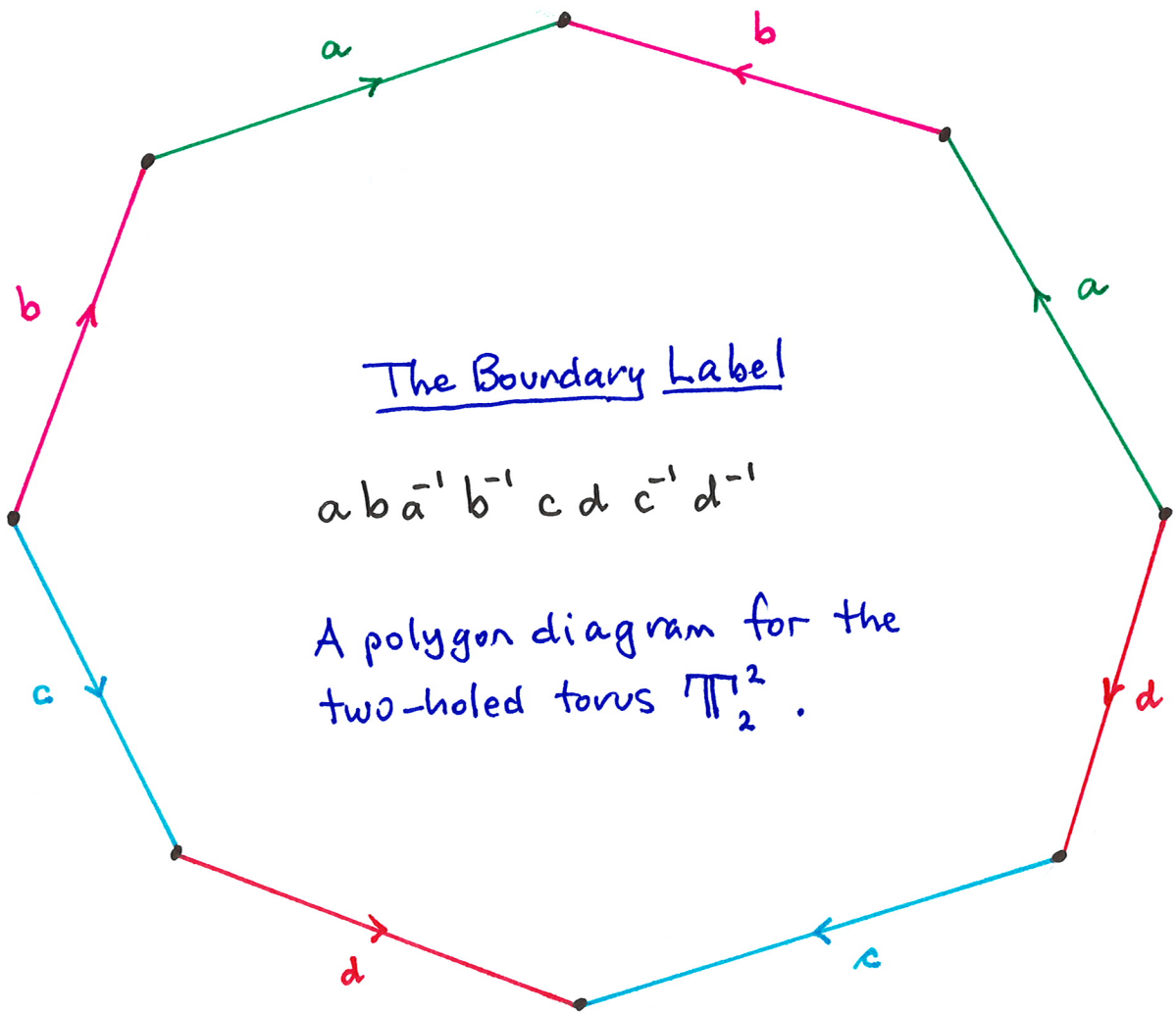


Flattening a Two-Holed Torus



Labeling the Edges



The Boundary Label

$$a b a^{-1} b^{-1} c d c^{-1} d^{-1}$$

A polygon diagram for the two-holed torus \mathbb{T}_2^1 .