The Back Side
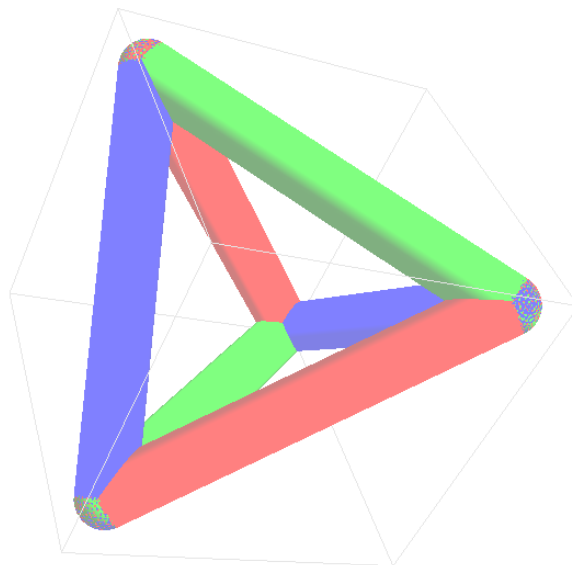
A homomorphism from S_4 to S_3:

A homomorphism from A_5, to the symmetry group of a dodecahedron, to A_6: