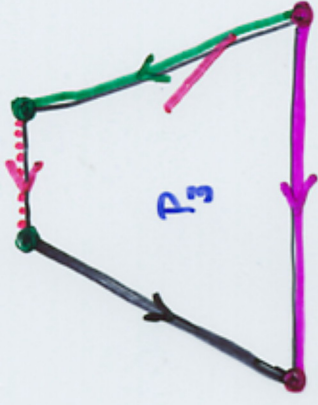
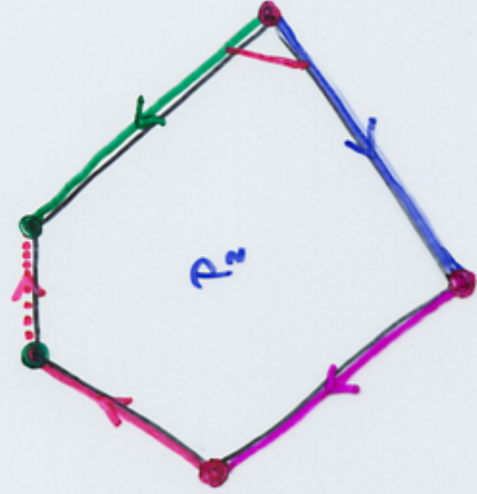
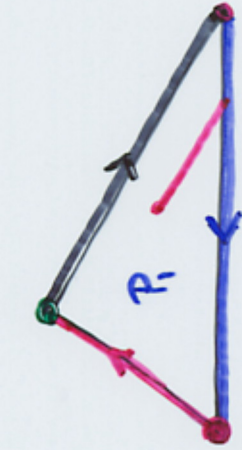


POLYGONAL SURFACES



- P_1, P_2, \dots, P_r polygons in \mathbb{R}^2
- Identify their sides in pairs (of the same length)
- \mathcal{S} is the resulting polygonal surface endowed with the shortest path metric.

- $\chi(\mathcal{S}) = v - e + f (= 2 - 4 + 3 = -1) \Rightarrow$ ^{3x} projective plane

for the above example