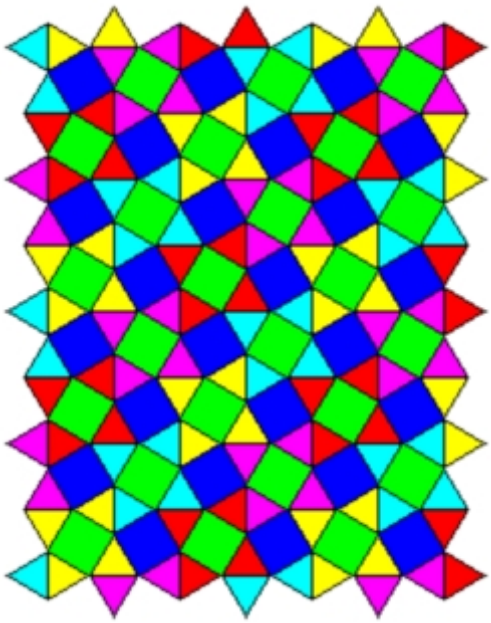
UNIVERSITÄT SIEGEN
FESTKÖRPERPHYSIK

Crystallography

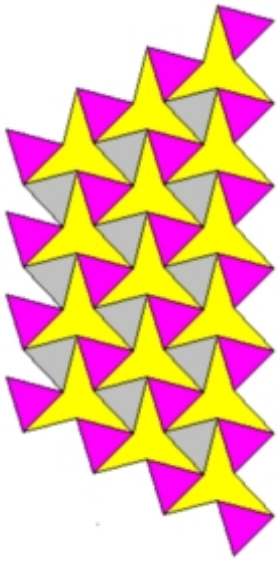
9. Homework Plane Space Groups

1. Define the space groups for the pictures below:

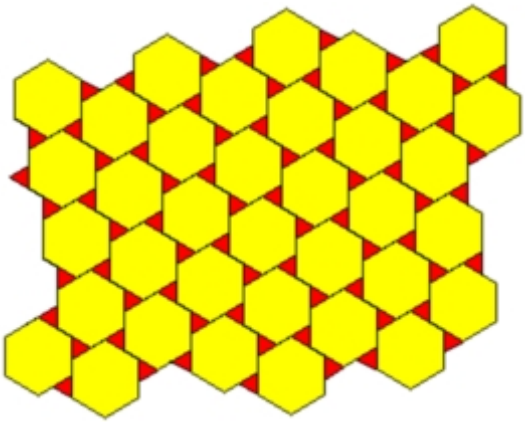
a.



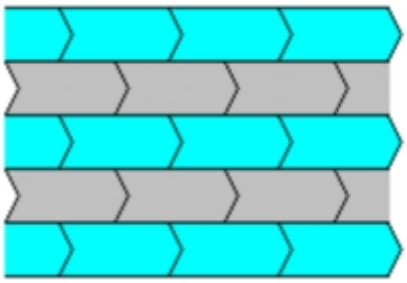
b.



c.



d.



2. For each of the following space groups

a. p2g
b. p4mm
c. p3
d. c2mm
e. p2mm
f. pg

depict the unit cell geometry, define the symmetry elements and Bravais lattice .

3. Bring an object from your house holding (textile, wearable etc) and explain to belonging of given space group. Confirm your arguments with possible Bravais lattice and symmetry elements.