MS2040\_01 Introduction to crystal structures and diffraction theories

Homework #2 Due: 10/14 after class

You are encouraged to organize a study group to solve the problem set.

1. Considering a two dimensional square lattice, if one put a basis with two fold rotation symmetry (Figure 1(a)) on the lattice point, determine the symmetry elements within the square unit cell (lattice).
2. Following problem 1, now changing the basis to one with 4 fold rotation symmetry (Figure 1(b)), determine the symmetry elements within the square unit c.

[Note: Draw the structure extending in 2D space!]

