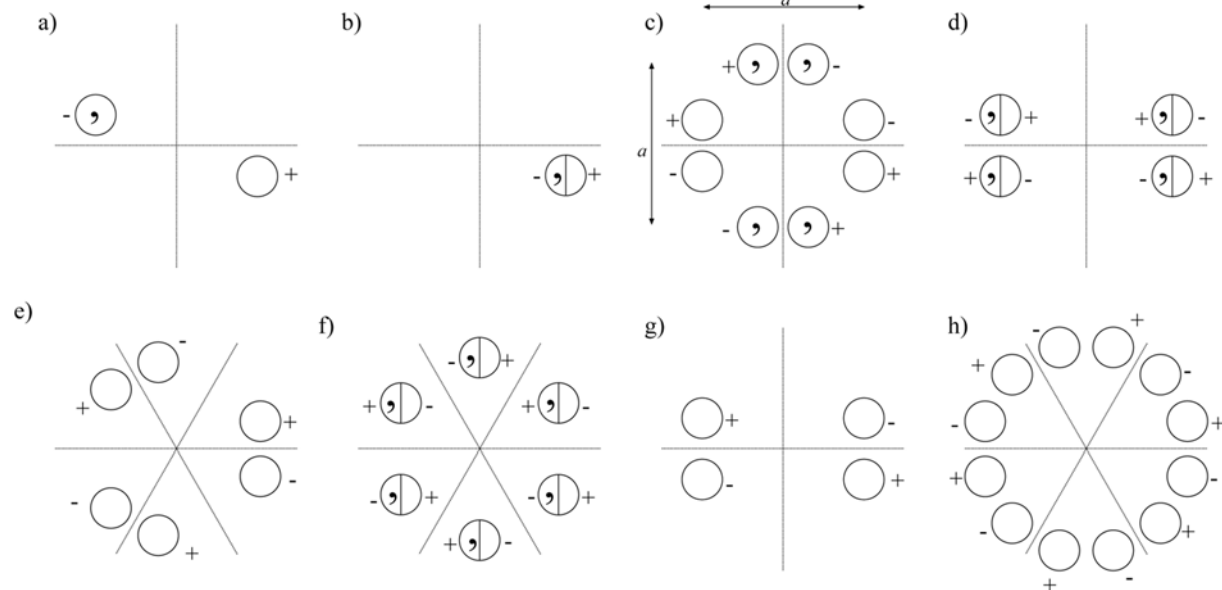


2. Point Groups

Problems

2.1. For each diagrams below:

- List the set of all symmetry elements;
- Identify the point group designation.
- Carefully draw a diagram that includes all symmetry elements,



2.2. Find equivalent specifications for the combined operations below using only a single operation.

All operations are around a common axis, unless specified otherwise.

- | | | |
|------------------------|--------------------------------|--|
| a) 2^2 | b) 6^3 , | c) $\bar{3}^4$ |
| d) $\bar{4}^2$ | e) $2_y \cdot 2_x$ | f) $m_z \cdot m_x$ |
| g) $2 \cdot 6 \cdot 3$ | h) $3_{[111]} \cdot 2_{[011]}$ | i) $\bar{4}_{[100]} \cdot 3_{[111]} \cdot m_{[110]}$ |