

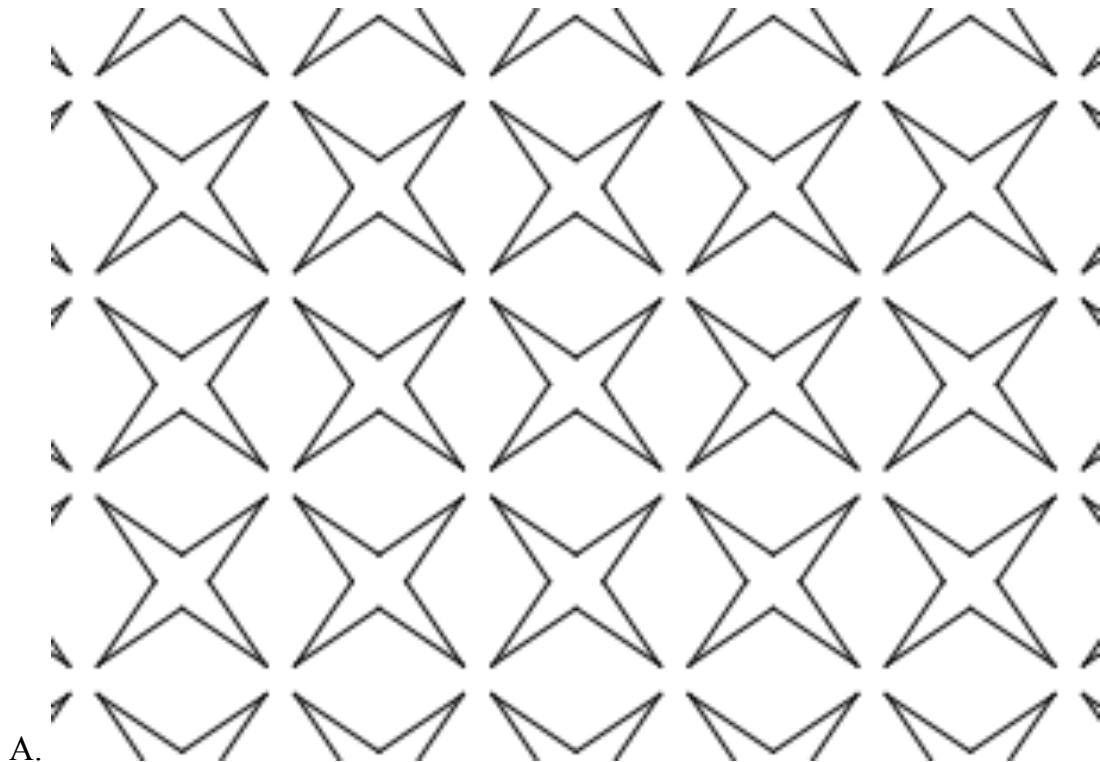
## Wallpaper Symmetry Exploration

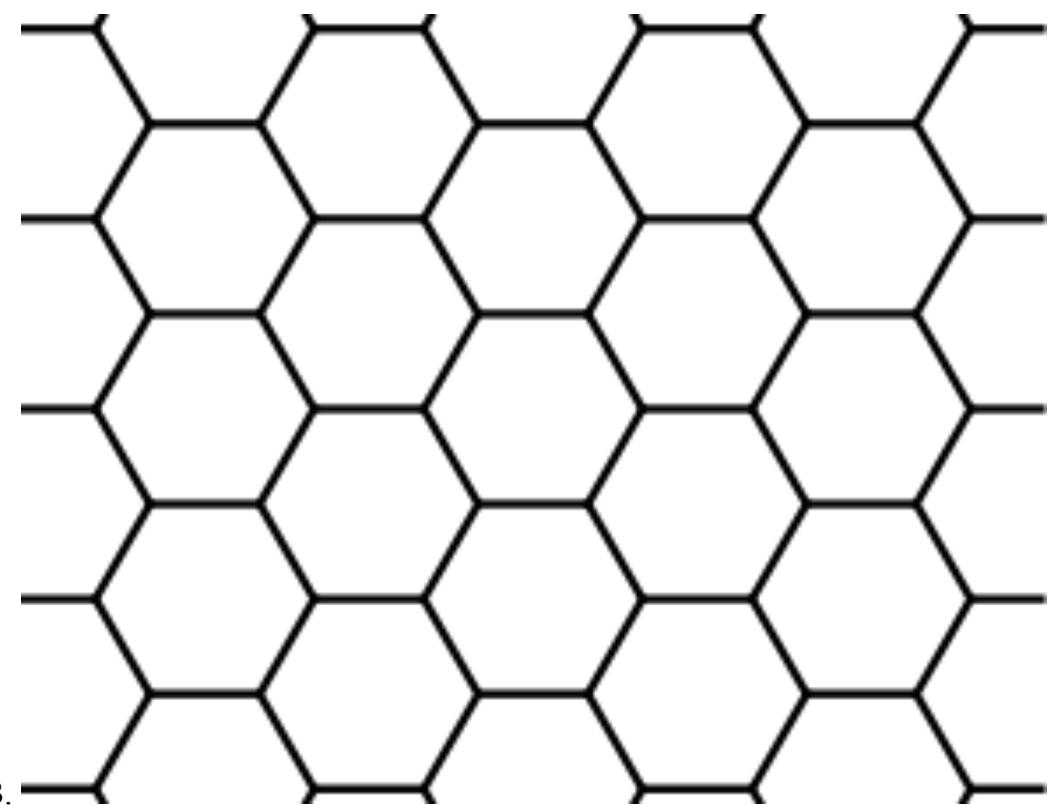
**Objective:** Learn to recognize the lattice in a wallpaper pattern. Learn to use the flow chart to identify wallpaper symmetry groups.

[edit] Geometric patterns

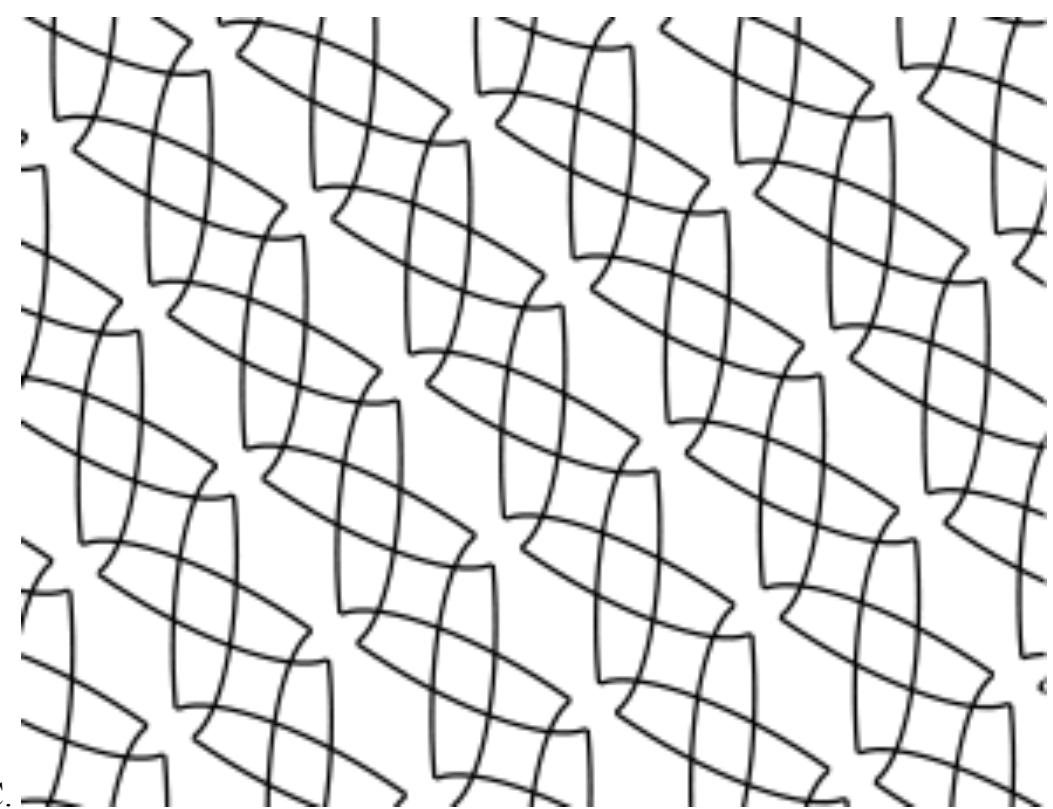
For the following geometric wallpaper patterns

1. Choose a point and mark the lattice of all translations of the point.
2. Mark all centers of rotation symmetry.
3. Identify and mark mirror lines.
4. Use the flowchart to identify the symmetry group of each pattern.

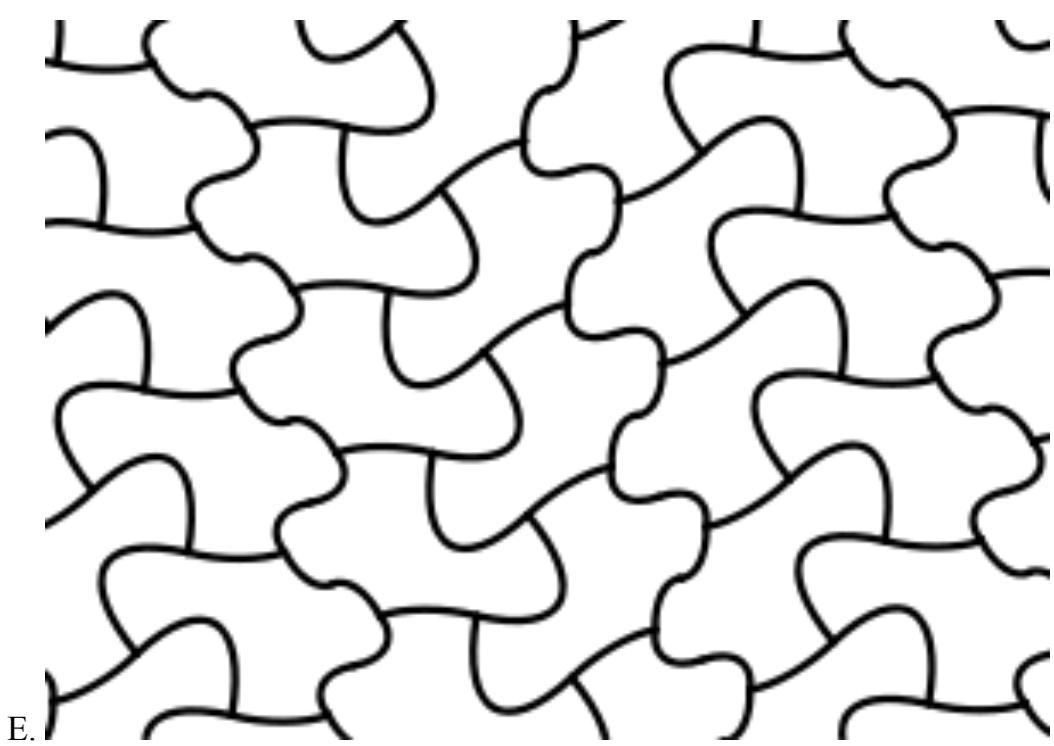
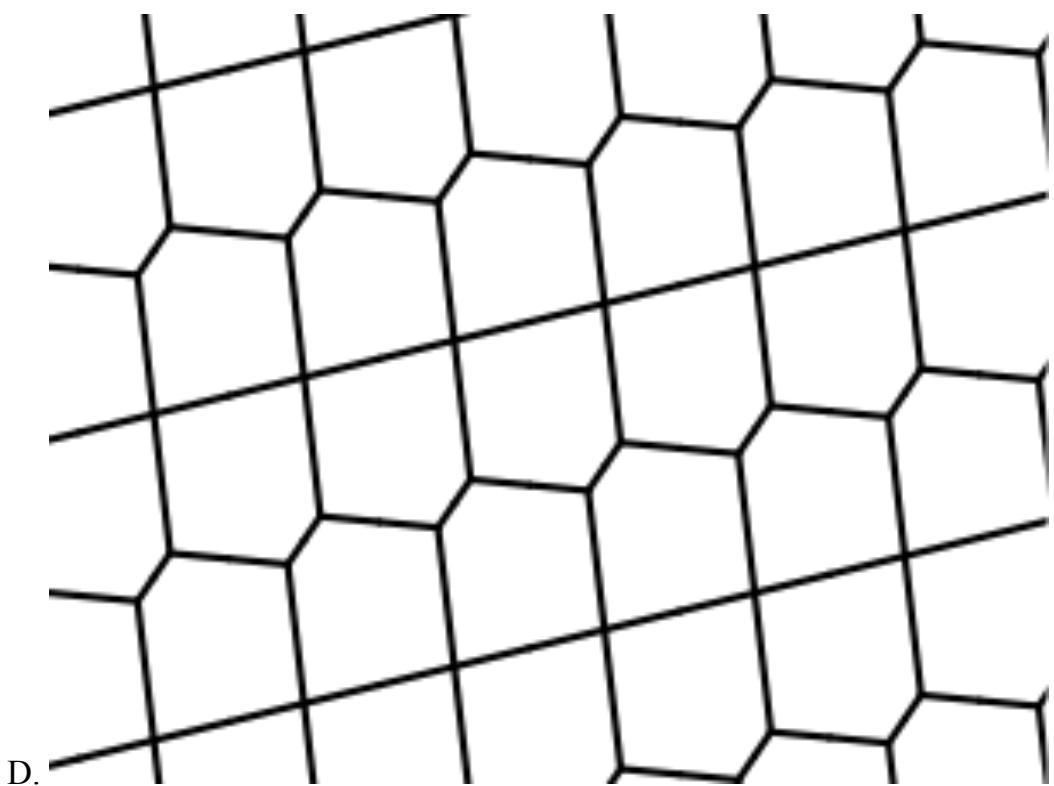


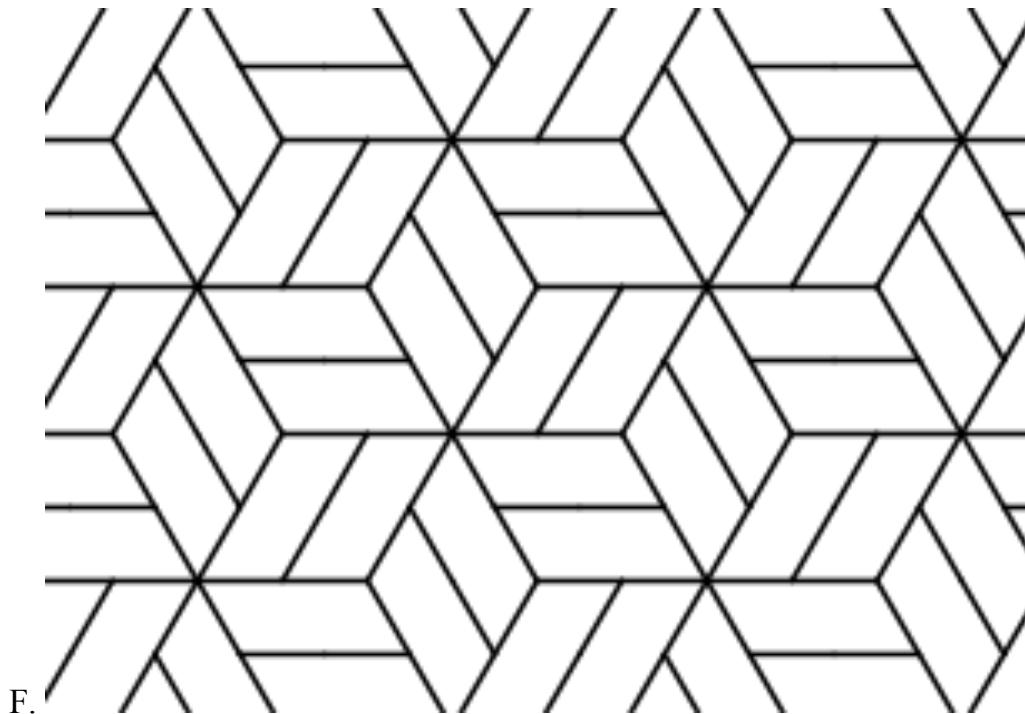


B.



C.





### Recognizable figures

For each of these sketches from Escher's regular division drawings, use the flow chart to identify the symmetry group of each pattern (ignore colors).

- \* Sketch #10 (Fish)
- \* Sketch #13 (Dragonflies)
- \* Sketch #17 (Parrots)
- \* Sketch #30 (Fish and boats)
- \* Sketch #85 (Fish, bats, lizards)

Handin: This page with the geometric patterns marked, and all symmetry groups identified.