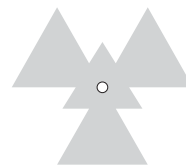
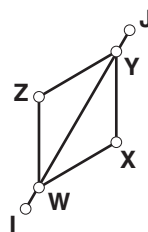
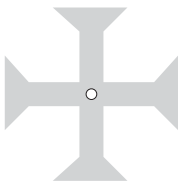
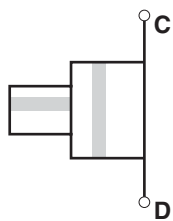


Reflection and Rotation Symmetry



Use Sketchpad to explore reflection and rotation symmetry.

1. Open the sketch **Symmetry Exp.gsp** and go to the page “Symmetry Exp 1.”
2. Follow the instructions in the sketch.
3. Go to the page “Symmetry Exp 2.”
4. Follow the instructions in the sketch and answer these questions.
 - a. Is the dashed segment **GH** a line of symmetry for quadrilateral **ADCB**? _____
 - b. How many lines of symmetry do you think quadrilateral **ADCB** has? _____
 - c. What kind of quadrilateral is **ADCB**? _____
 You can measure the angles and sides if needed to identify the quadrilateral.
 - d. Is the dashed segment **IJ** a line of symmetry for quadrilateral **WXYZ**? _____
 - e. How many lines of symmetry do you think quadrilateral **WXYZ** has? _____
 - f. What kind of quadrilateral is **WXYZ**? _____
 You can measure the angles and sides if needed to identify the quadrilateral.
 - g. Sketch quadrilateral **WXYZ** and show all its lines of symmetry here.
5. Go to the page “Symmetry Exp 3.”
6. Follow the instructions in the sketch and answer these questions.
 - a. How many lines of symmetry does the regular pentagon have? _____
 - b. Sketch the regular pentagon and show all its lines of symmetry here.

7. Go to the page "Symmetry Exp 4."
8. Follow the instructions in the sketch and answer these questions.
 - a. Does figure E have rotation symmetry? _____
 - b. If so, list the angle(s) of rotation that make the figure lie atop its original position. _____
 - c. Does figure F have rotation symmetry? _____
 - d. If so, list the angle(s) of rotation that make the figure lie atop its original position. _____
9. Go to the page "Symmetry Exp 5."
10. Follow the instructions in the sketch and answer these questions.
 - a. Does the regular hexagon in figure G have rotation symmetry? _____
 - b. If so, list the angle(s) of rotation that make the figure lie atop its original position. _____
 - c. Does figure H have rotation symmetry? _____
 - d. If so, list the angle(s) of rotation that make the figure lie atop its original position. _____
11. Go to the page "Symmetry Exp 6."
12. Follow the instructions in the sketch and answer these questions.
 - a. Does figure I have reflection symmetry? _____
 - b. If so, how many lines of symmetry does it have? _____
 - c. Does figure I have rotation symmetry? _____
 - d. If so, list the angle(s) of rotation that make the figure lie atop its original position. _____
 - e. Does figure J have reflection symmetry? _____
 - f. If so, how many lines of symmetry does it have? _____
 - g. Does figure J have rotation symmetry? _____
 - h. If so, list the angle(s) of rotation that make the figure lie atop its original position. _____