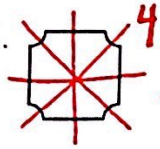
Name KEY Date _____ Class _____

Symmetry Homework

Tell whether each figure appears to have line symmetry, rotational symmetry, both, or neither. If line symmetry, tell how many lines of symmetry. If rotational symmetry, give the angles of rotational symmetry.

1.  BOTH — 4 Lines; Angles: 90°, 180°, 270°

2.  LINE SYMMETRY — 1 line

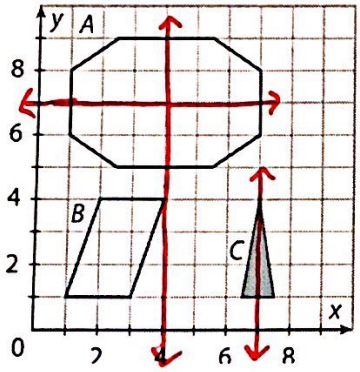
3.  ROTATIONAL SYMMETRY — Angle: 180°

4.  BOTH — 5 lines; Angles: 72°, 144°, 216°, 288°

5. How many lines of symmetry does a regular pentagon have? 5

6. How many lines of symmetry does a regular hexagon have? 6

Use the figures on the grid to answer Problems 7 – 9.



7. What are the equation(s) of the lines of symmetry for figure *A*?

   x = 4 (diagonals don't work)

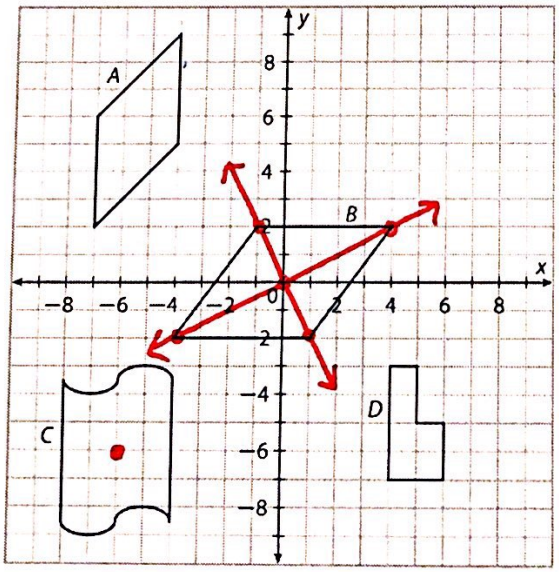
   y = 7

8. Does figure *B* have line symmetry, rotational symmetry, or both?

   Rotational only (180°)

9. What are the equation(s) of the lines of symmetry for figure *C*? x = 7

Use the figures on the grid to answer questions 10-12.



10. Does figure *D* have line symmetry, rotational symmetry, both, or neither? Explain your answer.

    Neither; there's no way to divide it into 2 equal halves; you can't turn it onto itself either.

11. What are the equations of the lines of symmetry for figure *B*?

    $y = -2x$ $y = \frac{1}{2}x$

12. Describe the symmetry of figure *C*.

    180° rotational symmetry around (-6, -6)

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