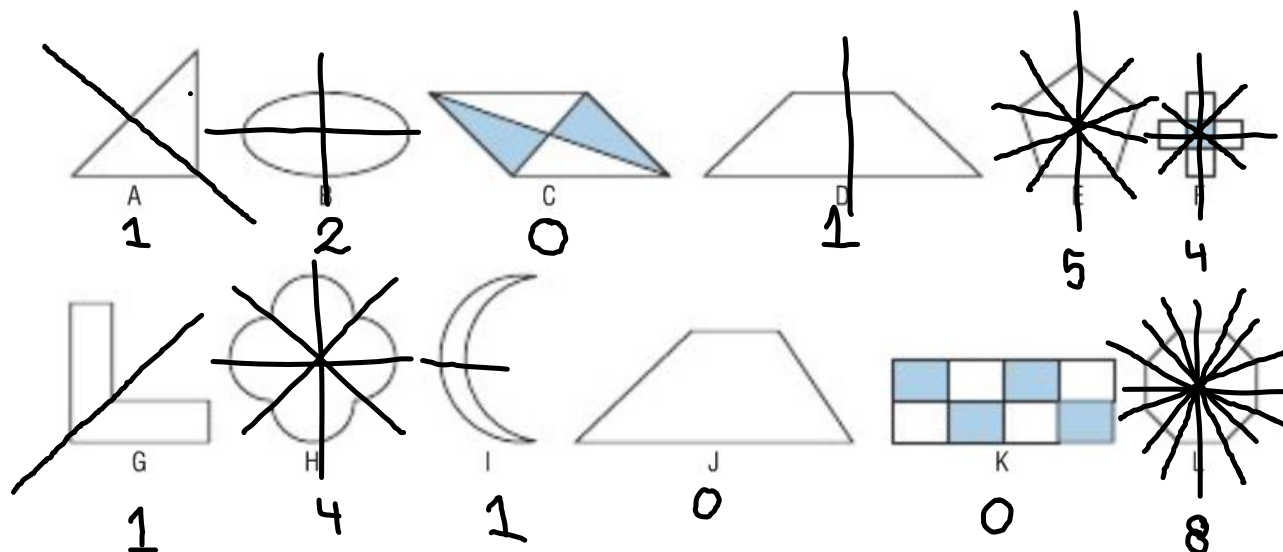


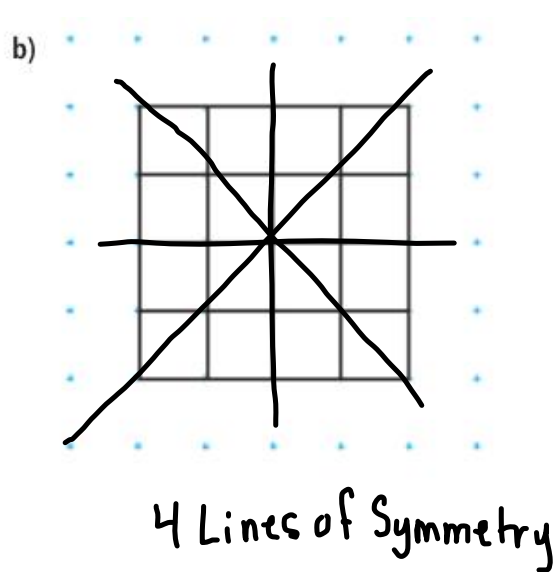
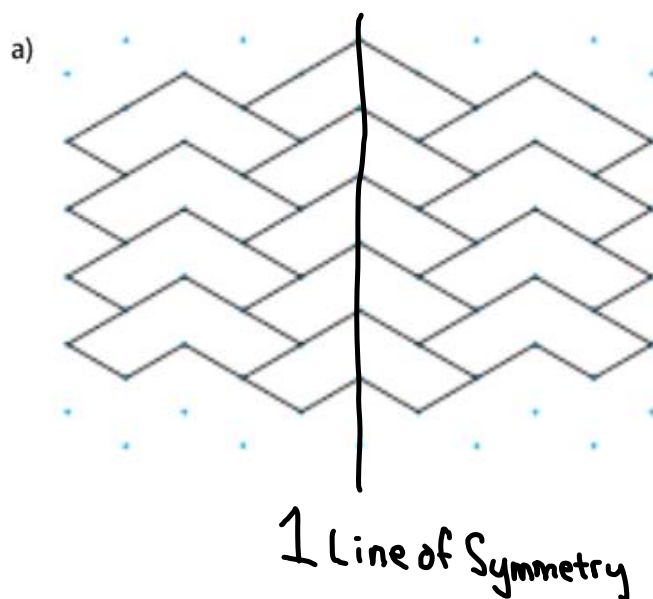
7.5 Reflections and Line Symmetry – Notes

Investigate

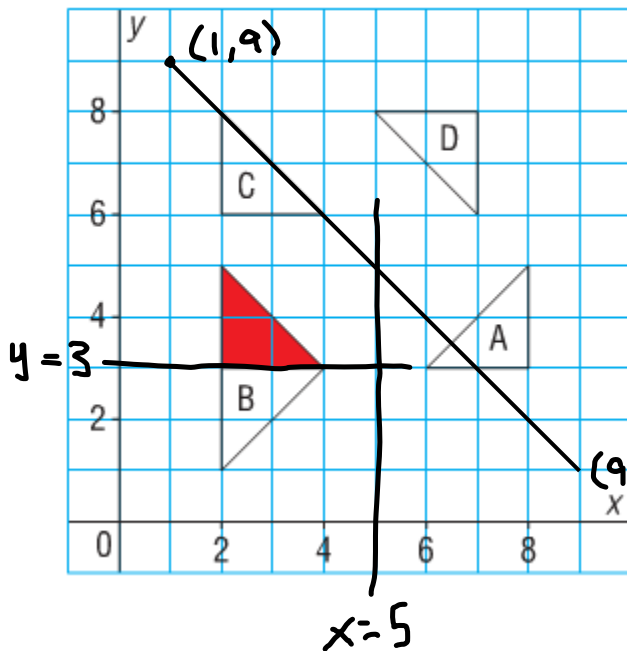


For each shape draw the lines of symmetry and state how many each shape has.

Example (1): Identify the lines of symmetry in each tessellation.



Example (2): Identify the triangles that are related to the shaded triangle by a line of reflection. Describe the position of each line symmetry.



Triangle A is a reflection of the shaded triangle through the line $x=5$ (vertical line that intersects the x -axis at 5.)

Triangle B is a reflection through the line $y=3$ (horizontal line that intersects the y -axis at 3.)

Triangle C is not related through a line of reflection.

Triangle D is a reflection through a line that passes through (1, 9) and (9, 1) or the line $x+y=10$

Example (3): Quadrilateral ABCD is part of a larger shape.

Draw the image of ABCD after each reflection below.

Write the coordinates of the larger shape formed by ABCD and its image.

- a reflection in the line $y=2$ (horizontal line that intersects y -axis at 2)
- a reflection in the line $x=6$ (vertical line that intersects x -axis at 6)
- a reflection in an oblique line through (0,0) and (6,6).

