

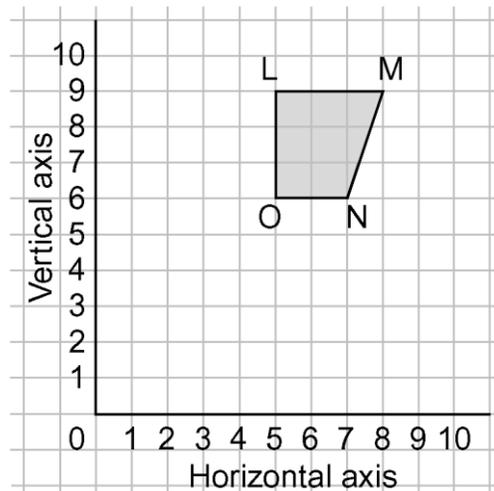
Lesson 7-1: Transformations

1. Draw an equilateral triangle on triangular dot paper.
 - a) Draw a mirror line.
Draw the reflection of the figure in the mirror line.
 - b) Can you describe a different transformation that would move the figure onto the image? Explain.

2. Draw an irregular figure on grid paper.
Choose a point inside the figure to be the turn centre.
Draw the image of the figure after a rotation 90° clockwise.

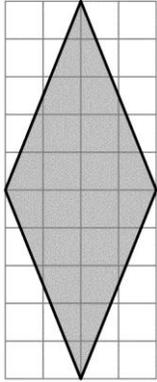
Lesson 7-2: Combined Transformations

Translate the figure 1 square left and 5 squares down.
Rotate the translation image 90° counter clockwise about $(4, 1)$.
Write the coordinates of the final image.

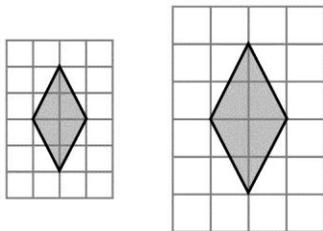


Extra Practice 2**Lesson 7-3: Congruent Figures**

Draw lines to divide this figure into 4 congruent polygons.
How do you know the polygons are congruent?

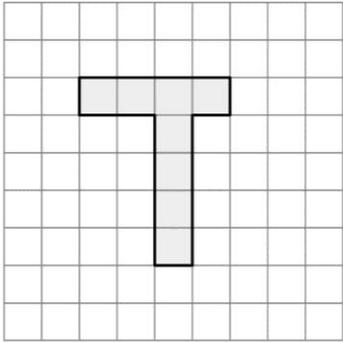
**Lesson 7-4: Similar Figures**

Are these figures similar?
How do you know?



Lesson 7-5: Line Symmetry

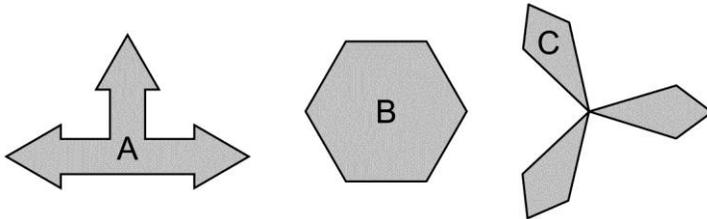
1. Add squares so this figure has 2 lines of symmetry.
How did you decide where to add the squares?



2. Use triangular dot paper.
Draw a design with 3 lines of symmetry.

Lesson 7-6: Rotational Symmetry

1. Which figure has rotational symmetry of order 3? How do you know?



2. A regular polygon has rotational symmetry of order 20.
How many sides does the polygon have? How do you know?

Lesson 7-8: Tiling Patterns

You will need Pattern Blocks and triangular dot paper.
Use blue rhombuses and red trapezoids to make a tiling pattern.
Record the pattern on dot paper.
Explain how you could use transformations to make your pattern.