Name _____ Date _____

Rigid Motions to Transform Figures - Guided Lesson Explanation

Explanation#1

Since $n = 5$ is odd and ℓ passes through a vertex and the midpoint of its opposite side, ℓ is a line of symmetry. One answer is a reflection across ℓ.

Rotating the shape by a multiple of $\frac{360^o}{5} = 72°$ carries the shape onto itself. Therefore, a second answer is a rotation of 72° clockwise.

Explanation#2

Rotating a regular hexagon by a multiple of $\frac{360^o}{6} = 60°$ carries the hexagon onto itself.

The answer is a rotation of 60° clockwise or counterclockwise.

Explanation#3

Rotating an equilateral triangle by a multiple of $\frac{360^o}{3} = 120°$ carries the triangle onto itself.

The answer is a rotation of 120° clockwise or counterclockwise.