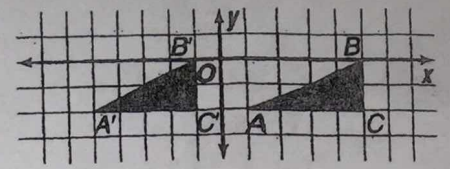


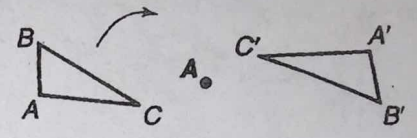
11-9 Study Guide

Transformations

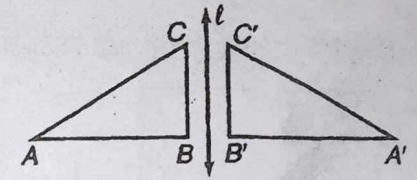
Transformations are movements of geometric figures. When a geometric figure is moved horizontally, vertically, or both, it is called a **translation**. The figure at the right is moved 6 units to the left.



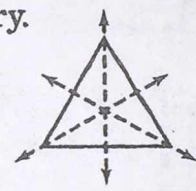
In a **rotation**, a figure is turned about a point.



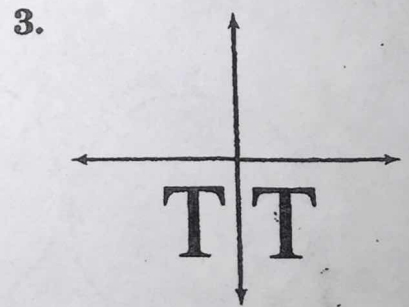
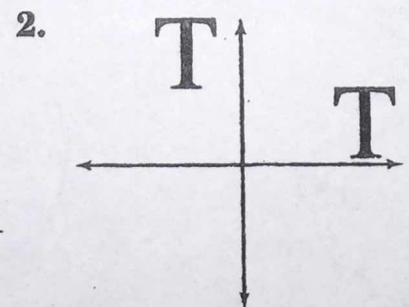
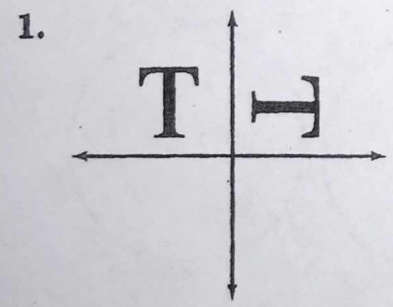
When a figure is "flipped" over a line, it is called a **reflection**. At the right, $\triangle ABC$ is *reflected* about line ℓ . Since the figure can be folded over line ℓ so that the two halves correspond, the figure is **symmetric**. Line ℓ is called a *line of symmetry*. A line of symmetry separates a figure into two congruent parts.



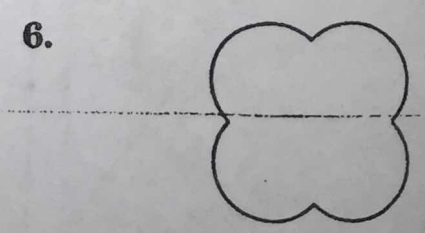
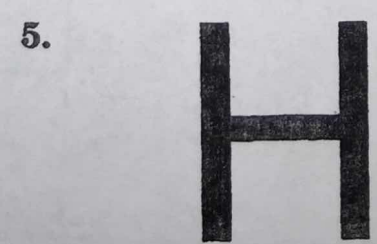
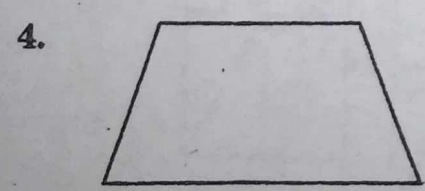
The figure at the right has three lines of symmetry.



Tell whether each transformation is a translation, a rotation, or a reflection. Explain your answer.



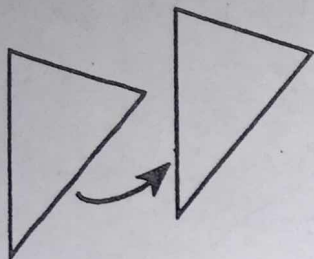
Draw all lines of symmetry.



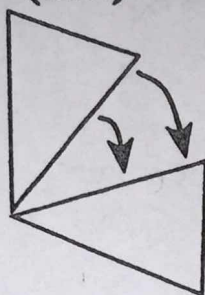
Transformation

Three Basic Movements

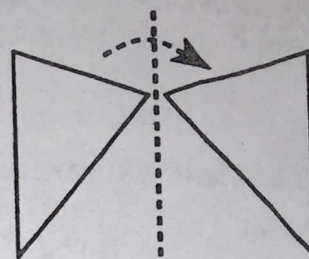
1. Translation
(Slide)



2. Rotation
(Turn)



3. Reflection
(Flip)



Which single basic motion will make these figures coincide?

