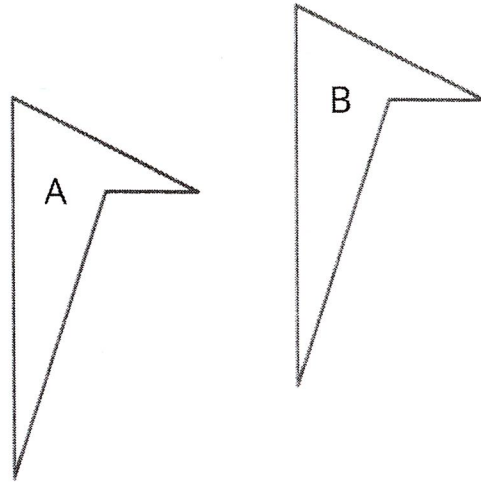


Lesson 1 Summary

Here are two ways for changing the position of a figure in a plane without changing its shape or size:

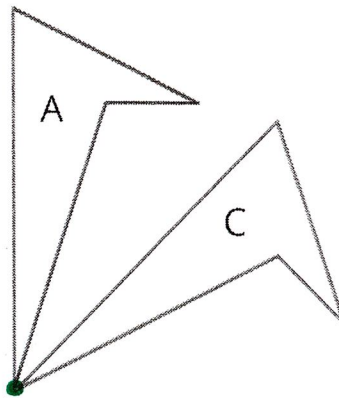
- Sliding or shifting the figure without turning it. Shifting Figure A to the right and up puts it in the position of Figure B.

- right or left
- up or down
- give a quantity of how far to move
ex: 3 units right


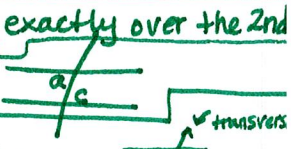
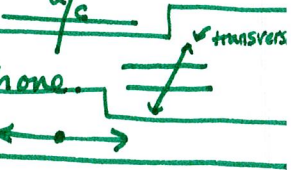



- Turning or rotating the figure around a point. Figure A is rotated around the bottom vertex to create Figure C.

- use terms "clockwise" ↻ & "counterclockwise" ↺ for the direction of rotation
- use a number of degrees to tell how much it should rotate ex: 90°
- what point should we rotate about?



Terms to Know:

Image		
Corresponding		
Clockwise	Turning in the same way that the hour or minute hand goes around a clock. ↻	
Counterclockwise	Turning in the opposite way to the way that the hour or minute hand goes around a clock. ↺	
Reflection	Takes Every point of the figure to a point directly opposite to it on the other side of the line and the same distance from the line.	
Rotation	It has a center, an angle, and a direction. It moves every point of a figure in a circle around the center, in the direction specified, and for a distance specified by the angle.	
Translation	Move every point in a figure a given distance in a given direction.	
Transformation	A translation, rotation, reflection, or dilation, or a combination of these.	
Sequence of transformations	A set of translations, rotations, reflections and dilations performed in a particular order on a geometric figure, resulting in a final figure.	
corresponding	If a part of the 1st figure matches up with a part of the image, we call them corresponding parts.	
rigid transformation	A sequence of translations, rotations, and reflections.	
vertical angles	A pair of angles that are across from each other at the point where 2 lines intersect.	
congruent	If there is a rigid transformation that moves the 1st figure so that it fits exactly over the 2nd	
alternate interior angles	If 2 interior angles lie on opposite sides of the transversal.	
transversal	A transversal to 2 parallel lines is a line that cuts across them, intersecting each one.	
straight angle	If the 2 rays that make an angle form a straight line.	
Image	The moved object.	