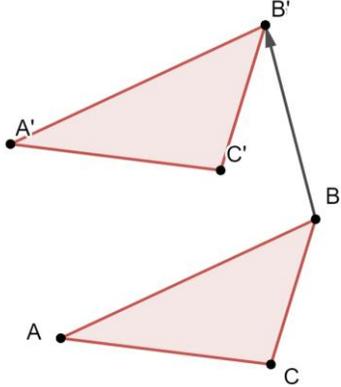
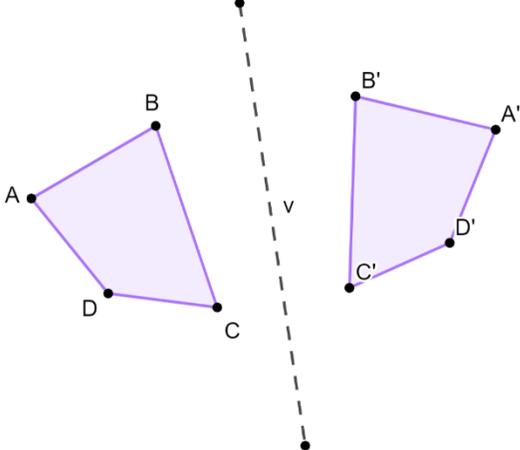
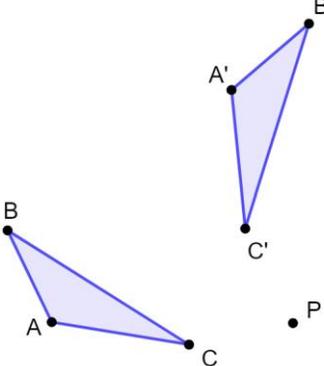
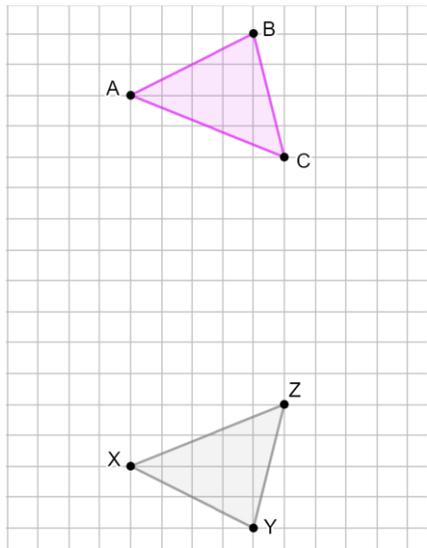


### Properties of Rigid Transformations

<p><b>1. Properties of a Translation.</b></p> 	<p>Fill out the diagram according to your GeoGebra graphic. Draw the other two vectors and label the lengths of your vectors. Then answer the following questions below.</p> <p><b>i.</b> How do the lengths of all three vectors compare? Does this relationship change if you adjust the length of your original vector?</p>
<p><b>2. Properties of a Reflection.</b></p> 	<p>Fill out the diagram according to your GeoGebra graphic. Draw at least two sets of lines that connect corresponding points and label those distances. Show and label the measure of the angles that are formed by these lines and the line of reflection.</p> <p><b>i.</b> How do the distances of corresponding points compare to the line of reflection?</p> <p><b>ii.</b> What angle do the line segments connecting corresponding points intersect the line of reflection at? Is this true for all points?</p>
<p><b>3. Properties of a Rotation.</b></p> 	<p>Fill out the diagram according to your GeoGebra graphic. Draw the two lines connecting corresponding points to the center of rotation, and label/draw the angle measure.</p> <p><b>i.</b> How do the distances of corresponding points compare to the center of rotation?</p> <p><b>ii.</b> How does the angle measure formed compare to the number of degrees the shape was rotated around the center of rotation?</p>

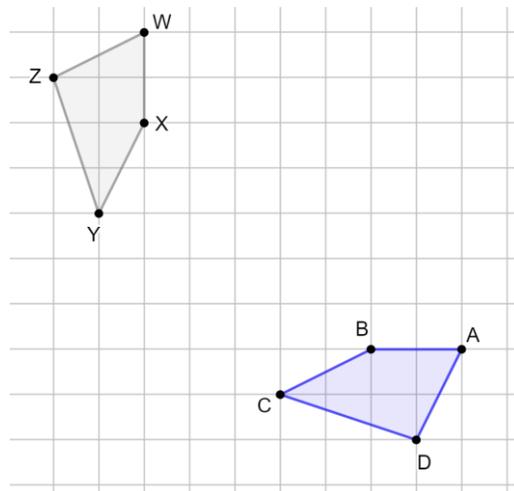
For questions 4-5, draw and label your line of reflection from GeoGebra. Then, write a description of the transformation that took place. For questions 6-7, draw and label your center of rotation, then write down a description of the transformation that took place.

4. \*draw and label your line of reflection



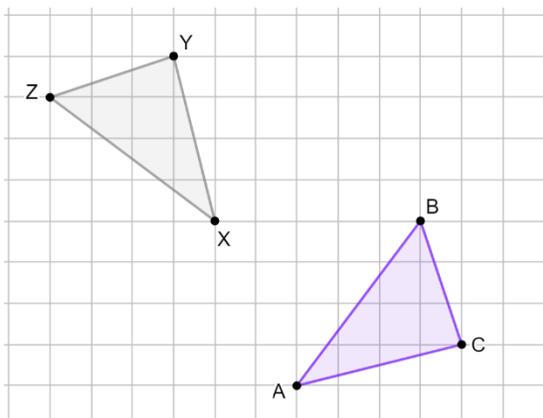
Description:

5. \*draw and label your line of reflection



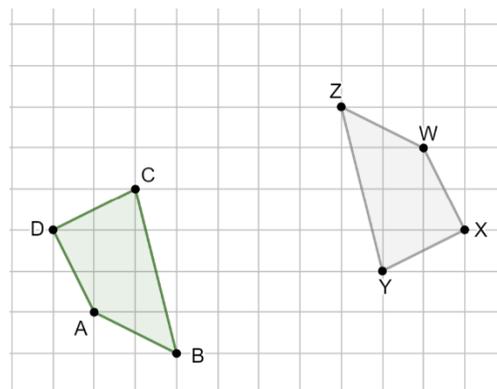
Description:

6. \*draw and label your center of rotation



Description:

7. \*draw and label your center of rotation



Description: