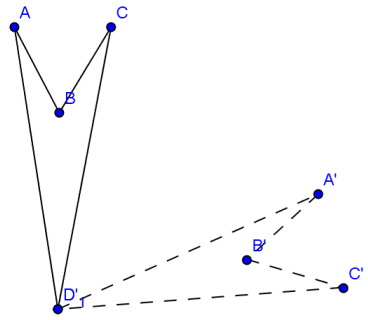
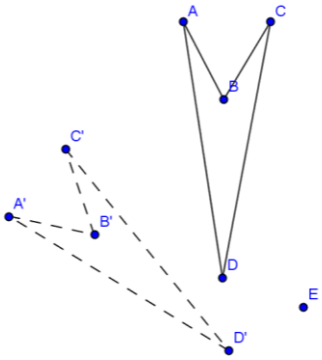
Apply and Finding Angles of Rotation Name: _____ Per: _____ Date: _____

1. Determine the angle of rotation of figure that was rotated about point D.



2. Determine the angle of rotation of figure that was rotated about point E.



3. Determine point of the center of rotation of the figure.

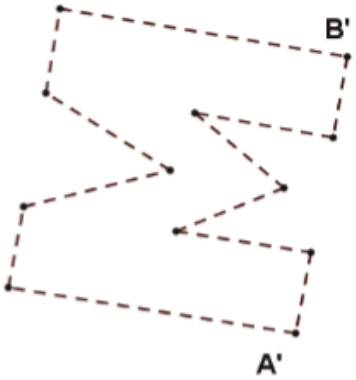
a. Draw a segment connecting points A and A'.

b. Using a compass and straightedge, find the perpendicular bisector of this segment.

c. Draw a segment connecting points B and B'.

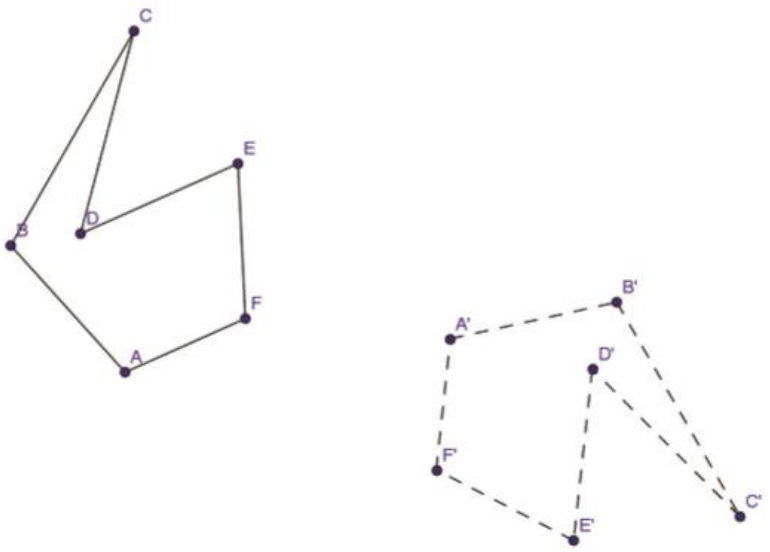
d. Find the perpendicular bisector of this segment.

e. The point of intersection of the two perpendicular bisectors is the center of rotation. Label this point P.

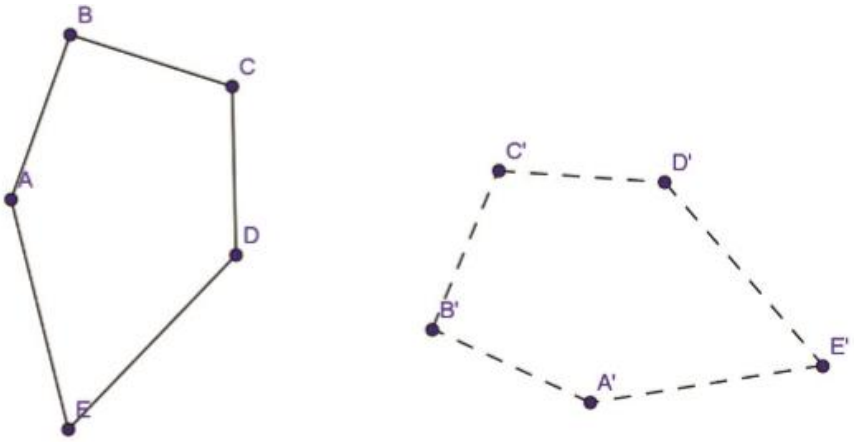


Justify your construction by measuring $\angle APA'$ and $\angle BPB'$. Did you obtain the same measure?

4. Find the center of rotation using a compass and straight edge. Label it point X.

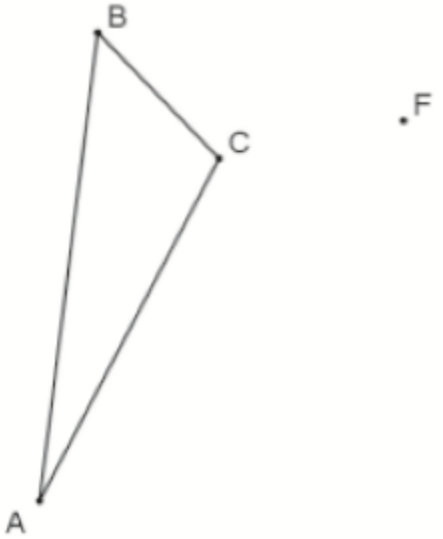


5. Find the center of rotation using a compass and straight edge. Label it point Y.



Rotate each figure using a compass and straightedge only

6. $\boldsymbol{ABC}$ **60°** around point F.



7. $\boldsymbol{ABCD}$ **100°** around point $\boldsymbol{E}$