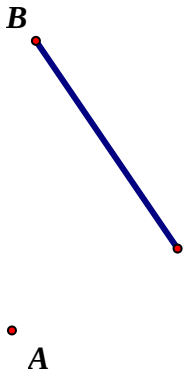
Geometry – Unit 2 Activity
Rotation Construction
G.CO.A.4

Name: _____!

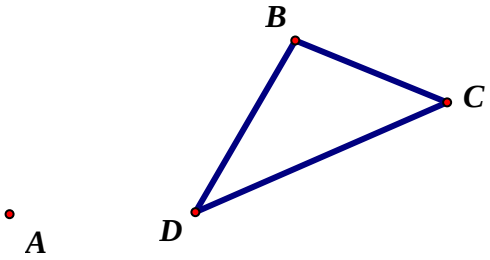
Date: _____ Pd: ____

1) Use a compass, a straightedge and a protractor to construct the following rotations.

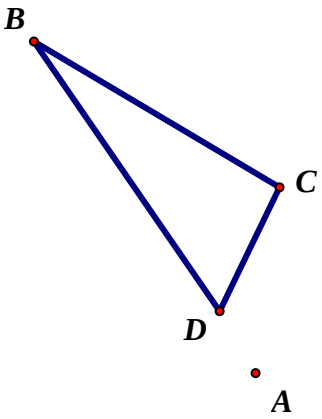
a) $R_{A,150^\circ}\left(\overline{BC}\right)$



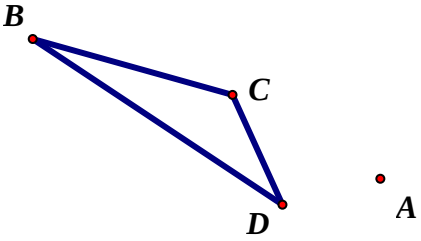
b) $R_{A,110^\circ}\left(\Delta BCD\right)$



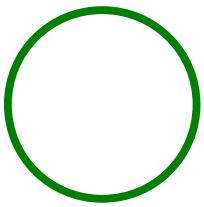
c) $R_{A,-60^\circ}\left(\Delta BCD\right)$



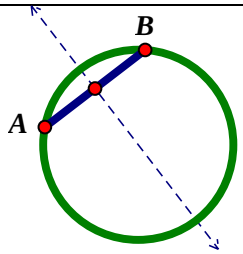
d) $R_{A,80^\circ}\left(\Delta BCD\right)$



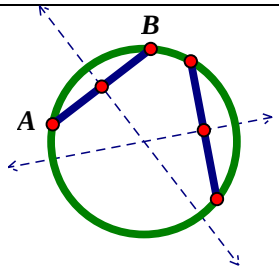
TIP … If you are trying to find the center of a circle, perpendicular bisectors can help.



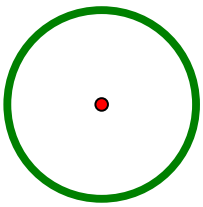
A circle with no center.



Perform the perpendicular bisector of any two points on the circle. This line passes through the center.



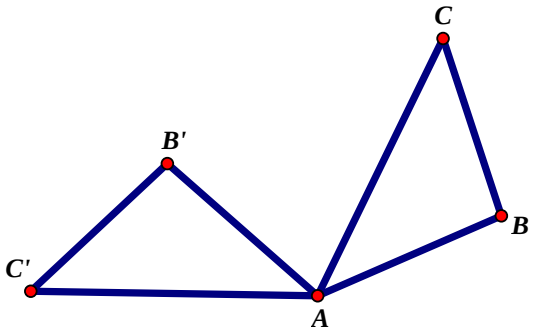
Perform it a second time, the intersection must be the center because both perpendicular bisectors bisect the circle.



You have found the center of the circle!

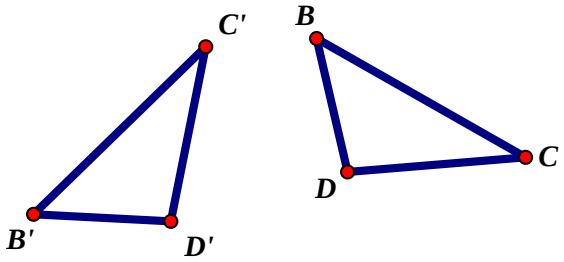
2) Perform the following constructions then write the coordinate rule:

a) Construct the center of rotation and determine the angle of rotation. *Use a protractor to measure the angle size.*



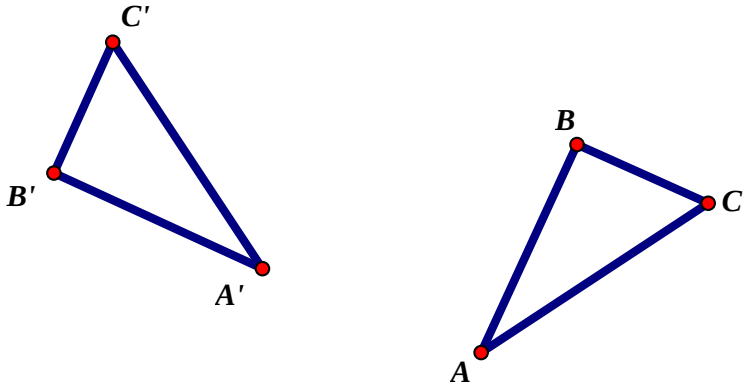
$R\_,\_\_\_^{\circ}(\_\_\_\_\_)$

b) *Don't forget the tip on the previous page.* Construct the center of rotation of ΔBCD & $\Delta B'C'D'$. Apply it to find the CENTER of rotation and label that point *X*.



$R\_,\_\_\_^{\circ}(\_\_\_\_\_)$

c) Construct the center of rotation of ΔABC & $\Delta A'B'C$ and determine the angle of rotation. Apply it to find the CENTER of rotation and label that point *Y*.



$R\_,\_\_\_^{\circ}(\_\_\_\_\_)$