Lesson 9: Sequencing Rotations

Exit Ticket

1. Let $Rotation_1$ be the rotation of a figure $d$ degrees around center $O$. Let $Rotation_2$ be the rotation of the same figure $d$ degrees around center $P$. Does the $Rotation_1$ of the figure followed by the $Rotation_2$ equal a $Rotation_2$ of the figure followed by the $Rotation_1$? Draw a picture if necessary.

2. Angle $ABC$ underwent a sequence of rotations. The original size of $\angle ABC$ is $37^\circ$. What was the size of the angle after the sequence of rotations? Explain.

3. Triangle $ABC$ underwent a sequence of rotations around two different centers. Its image is $\triangle A'B'C'$. Describe a sequence of rigid motions that would map $\triangle ABC$ onto $\triangle A'B'C'$.

![Diagram of rotations]