For the six-pointed star at the bottom, find the following:

- 1. the image of A after a  $120^{\circ}$  rotation counterclockwise around O
- 2. the image of  $\overline{IK}$  after a  $120^o$  rotation counterclockwise around O
- 3. the image of  $\triangle GHI$  after a 120° rotation counterclockwise around O
- 4. the image of E after a reflection in line AG
- 5. the image of  $\overline{CD}$  after a reflection in line  $\overleftrightarrow{AG}$
- 6. the image of  $\overline{KO}$  after a reflection in line  $\overleftrightarrow{AG}$
- 7. the image of C after a reflection in line  $\overrightarrow{LF}$
- 8. the image of  $\overline{OE}$  after a reflection in line  $\overrightarrow{LF}$
- 9. the image of  $\angle GHI$  after a reflection in line  $\overrightarrow{LF}$

