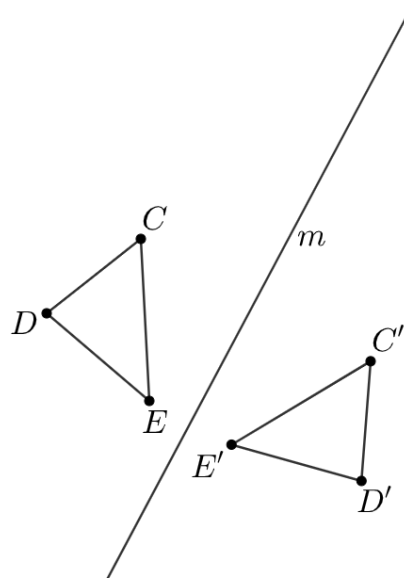# Lesson 1.11
Deep Dive: Transformations

Geometry GT

Task #1

$\Delta C'D'E'$ is the image of ΔCDE after a reflection across line m.

A. Reflect $\Delta C'D'E'$ across line $\overleftrightarrow{CC'}$ and label the new image $\Delta C''D''E''$.

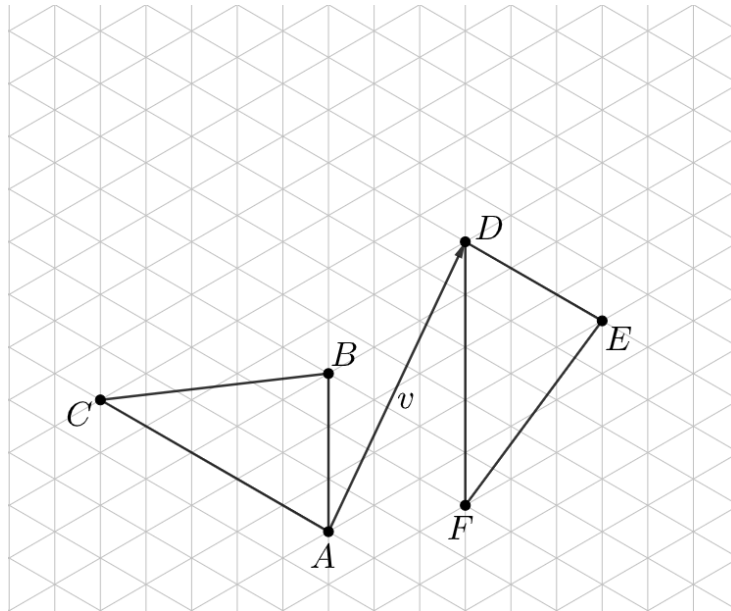**B.** Find a single rigid motion that takes ΔCDE to $\Delta C''D''E''$.

Task #2

AJ suspects $\triangle ABC$ is congruent to $\triangle DEF$. They think these steps will work to show there is a rigid transformation from ABC to DEF:

- Translate by directed line segment v

- Rotate the image $120°$ clockwise around point D

- Reflect that image over segment $\overline{DE}$

Draw each image.

    A. AJ's first two steps could be combined into a single rotation. What is the center and angle of this rotation?

    B. Describe a general procedure for finding a center of rotation.

Areas for Improvement	Standards and Criteria	Areas of Excellence
	Reason abstractly and quantitatively Describe why certain geometric concepts are true and apply the ideas to specific scenarios.	
	Use appropriate tools strategically Accurately use a straightedge, compass, and/or tracing paper to construct the appropriate figures.	
	Attend to precision Use precise mathematical language in writing instructions and utilize accurate definitions.	