

## CCG 1.2.2: Transformations with 1-59 & 1-60a, c (Desmos)

Click on the links below.

[1-59 Student eTool](#)

[1-60a Student eTool](#)

[1-60c Student eTool](#)

### 1. 1-59: Click the folder buttons to view.

CCG 1-59 Student eTool

desmos

1 CCG 1-59 Student eTool

2 1-59. As Amanda was finding reflections, she wondered, "What if I reflect a shape twice over parallel lines?"

3 a. Find  $\triangle ABC$  and lines  $n$  and  $p$  (shown below). What happens when  $\triangle ABC$  is reflected across line  $n$  to form  $\triangle A'B'C'$  and then  $\triangle A'B'C'$  is reflected across line  $p$  to form  $\triangle A''B''C''$ ? First visualize the reflections and then test your idea of the result by drawing both reflections.

4 b. Examine your result from part (a). Compare the original triangle  $\triangle ABC$  with the final result,  $\triangle A''B''C''$ . What single motion would change  $\triangle ABC$  to  $\triangle A''B''C''$ ?

5 c. Amanda analyzed her results from part (a). "It looks like I could have just slid  $\triangle ABC$  over!" Sliding a shape from its original position to a new position is called translating. What words can you use to describe a translation?

6 d. The words "transformation" and "translation" sound alike and can easily be confused. Discuss in your team what these words mean and how they are related to each other.

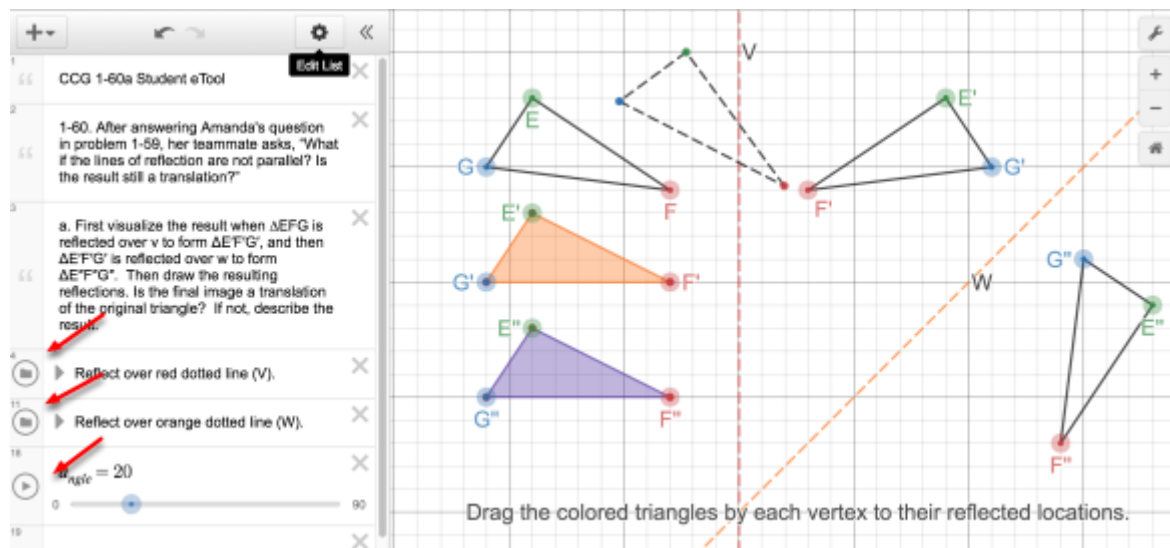
7 Click the circle on line 9 and 16 to reveal the reflection. To create a new shape, move the colored points about to change the shape.

9 Reflect over red dotted line.

16 Reflect over blue dotted line.

Drag the colored triangles by each vertex to their reflected locations.

## 2. 1-60a: Click the folder buttons to view the reflections. Drag the slider to view the rotation.



## 3. 1-60c: Drag the Angle Slider to view the rotation.

