| Task Model 2

Response Type: Matching Tables

DOK Level 2

8.G.2
Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.

8.G.3
Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.

Evidence Required:
2. The student describes sequences of rotations, reflections, translations, and dilations that can verify whether two-dimensional figures are similar or congruent to each other.

Tools: Calculator | **Prompt Features:** The student is prompted to verify that two figures are similar or congruent by describing a sequence of rotations, reflections, translations, and dilations that exhibit the similarity or congruence between two given figures.

Stimulus Guidelines:
• A figure will contain no more than eight vertices.
• Item difficulty can be adjusted via these example methods:
 o Varying the type and number of transformations
 o Inclusion of dilations.

TM2
Stimulus: Transformations will include rotation, reflection, dilation, and/or translation.

Example Stem: Consider this figure.
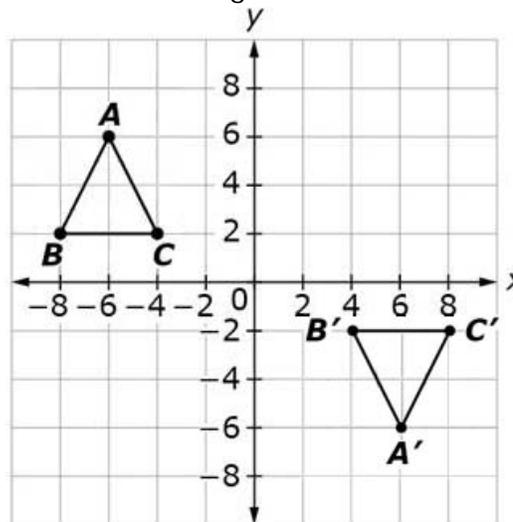
Consider the statements in the table shown. Select True or False for each statement about the sequences of transformations that can verify that triangle *ABC* is congruent to triangle *A′B′C′*. |

Statement	True	False
Triangle *ABC* is translated 12 units to the right, followed by a reflection across the *x*–axis.		
Triangle *ABC* is a reflected across the *y*–axis, followed by a translation 12 units down.		
Triangle *ABC* is reflected across the *x*–axis, followed by a translation 12 units to the right.		

Rubric: (1 point) The student selects True or False for the correct sequence of transformations for the figure (e.g., T, F, T).

Response Type: Matching Tables

Task Model 3
 	
Response Type: Graphing
 	
DOK Level 2
 	
8.G.3
Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.
 	
Evidence Required:
3. The student constructs a new figure after the original figure is dilated, rotated, reflected, or translated.
 	
Tools: Calculator
	Prompt Features: The student draws the image of a figure after a single rotation, reflection, translation, or dilation.
	
	Stimulus Guidelines:
	  • A figure will contain no more than eight vertices.
	  • Item difficulty can be adjusted via these example methods:
	     o Varying the type and number of transformations
	     o Inclusion of dilations
	     o Number of vertices.
	
	TM3
	Stimulus: The student is presented with a figure on a coordinate plane and a verbal description of a single rotation, reflection, translation, or dilation.
	
	Example Stem: The figure on the coordinate plane is reflected across the y-axis.
	
	Use the Connect Line tool to draw the resulting image of the figure.
	
	Interaction: The student uses the Connect Line tool to draw a figure on a grid. The Add Point and Delete button should also be available. The grid should have snap functions at every intersection of grid lines.
	
	Rubric: (1 point) The student draws the triangle in the correct location.
	
	Response Type: Graphing