

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.

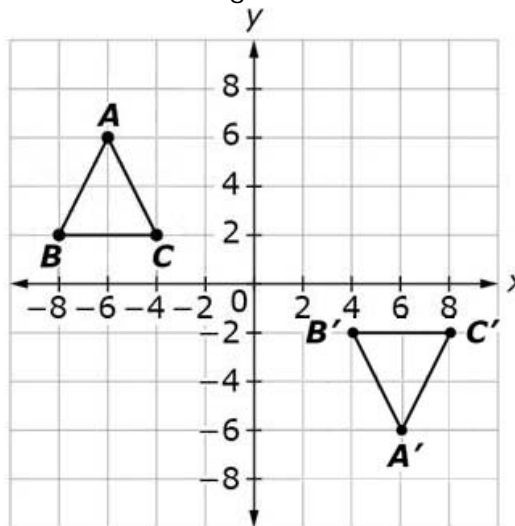
Stimulus Guidelines:

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

TM2

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

Example Stem: Consider this figure.

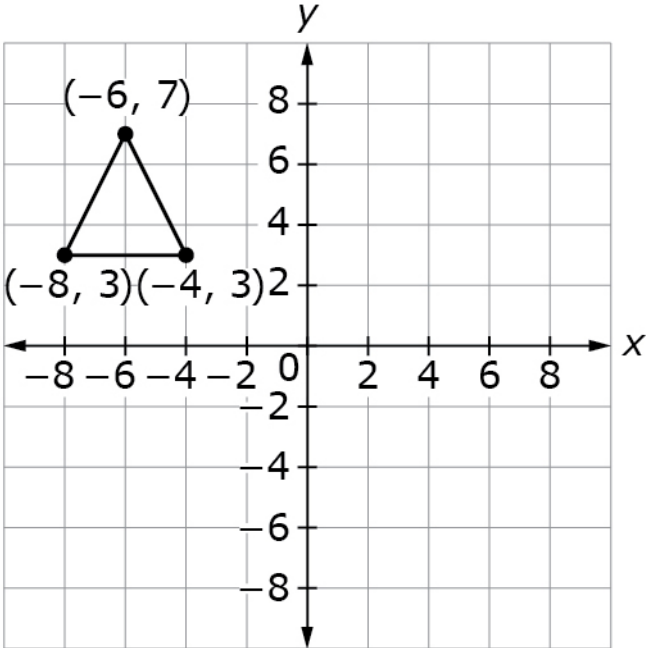


Consider the statements in the table shown. Select True or False for each statement about the sequences of transformations that can verify that triangle ABC is congruent to triangle $A'B'C'$.

| 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

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| <p>Task Model 3</p> <p>Response Type: Graphing</p> <p>DOK Level 2</p> <p>8.G.3 Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.</p> <p>Evidence Required: 3. The student constructs a new figure after the original figure is dilated, rotated, reflected, or translated.</p> <p>Tools: Calculator</p> | <p>Prompt Features: The student draws the image of a figure after a single rotation, reflection, translation, or dilation.</p> <p>Stimulus Guidelines:</p> <ul style="list-style-type: none"> • A figure will contain no more than eight vertices. • Item difficulty can be adjusted via these example methods: <ul style="list-style-type: none"> ○ Varying the type and number of transformations ○ Inclusion of dilations ○ Number of vertices. <p>TM3</p> <p>Stimulus: The student is presented with a figure on a coordinate plane and a verbal description of a single rotation, reflection, translation, or dilation.</p> <p>Example Stem: The figure on the coordinate plane is reflected across the y-axis.</p> <div style="text-align: center;">  </div> <p>Use the Connect Line tool to draw the resulting image of the figure.</p> <p>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.</p> <p>Rubric: (1 point) The student draws the triangle in the correct location.</p> <p>Response Type: Graphing</p> |
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