

Compositions of Isometries

Today I Can

1. Perform successive transformations.

Isometry

A transformation that preserves distance or length; *i.e.* the pre-image and image are congruent.

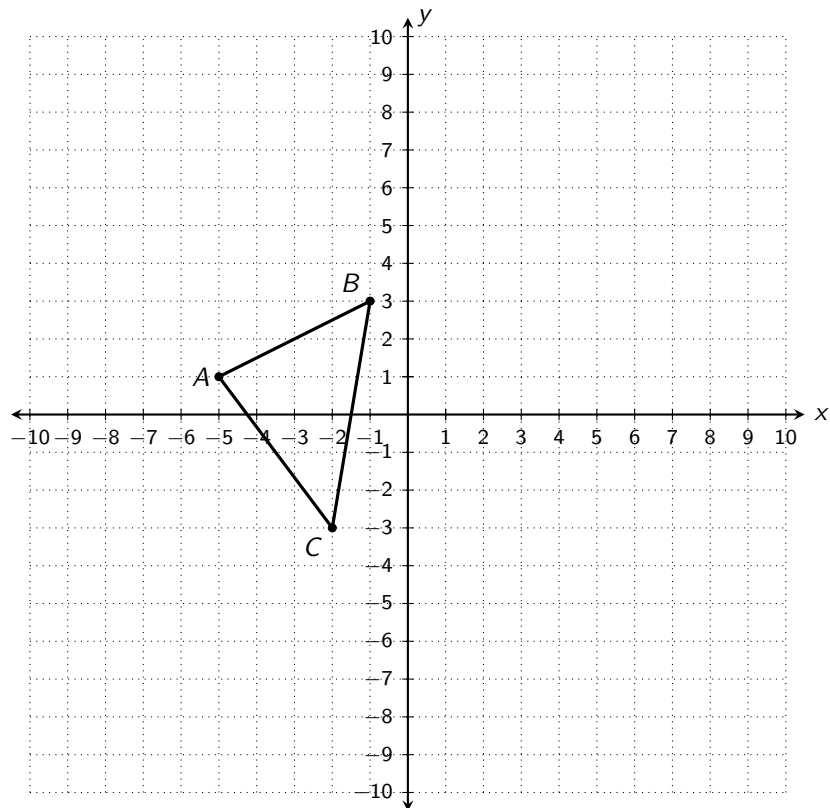
The isometries we have studied so far are

- Translations
- Reflections
- Rotations

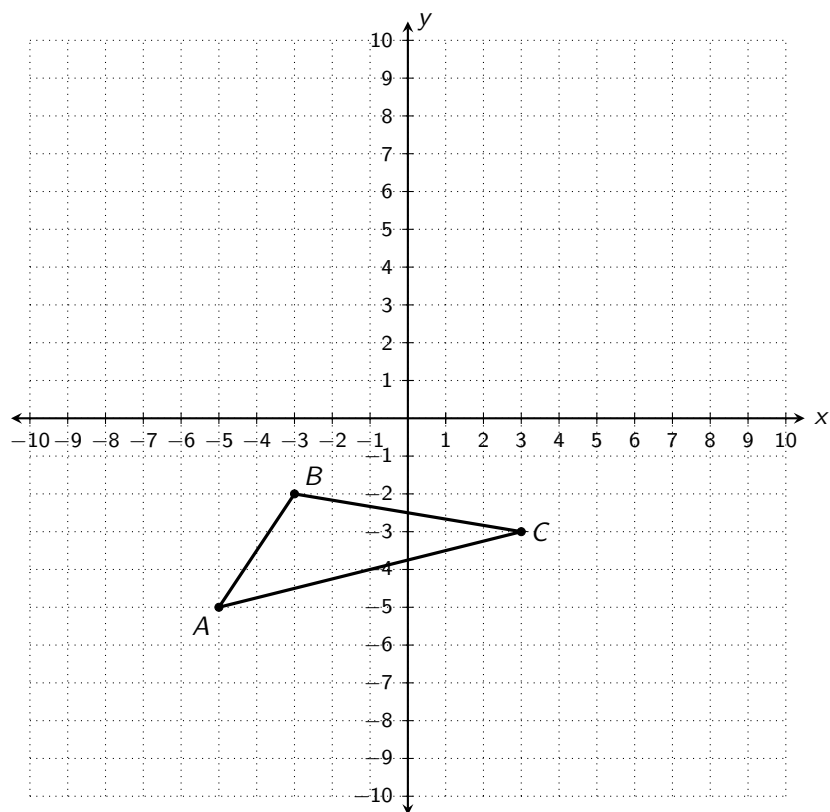
Composition of Isometries

The result when one isometry is applied to after another.

Example 1. Translate $\triangle ABC$ 2 units right and 3 units down. Then reflect that result across the x -axis.



Example 2. Rotate $\triangle ABC$ 90° counterclockwise. Then reflect that result across the y -axis.



Example 3. Rotate $\triangle ABC$ 180° . Then reflect that result across the line $x = 1$.

