Warm-up (on your own paper)

List 4 transformations and a definition in your own words for each.

Answers to Homework

Transformation

A change in the size, shape, orientation, or position of an object

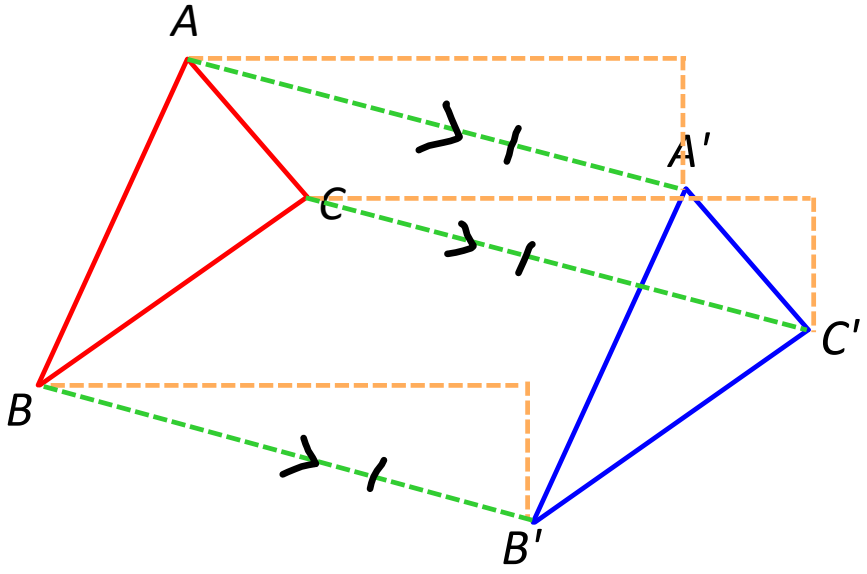
A transformation will change every point of some PRE-IMAGE, and will "map" it onto a new IMAGE

In geometry, three types of transformations are considered ISOMETRIC (the size and shape of the image does not change)

1 - TRANSLATION
2 - ROTATION
3 - REFLECTION

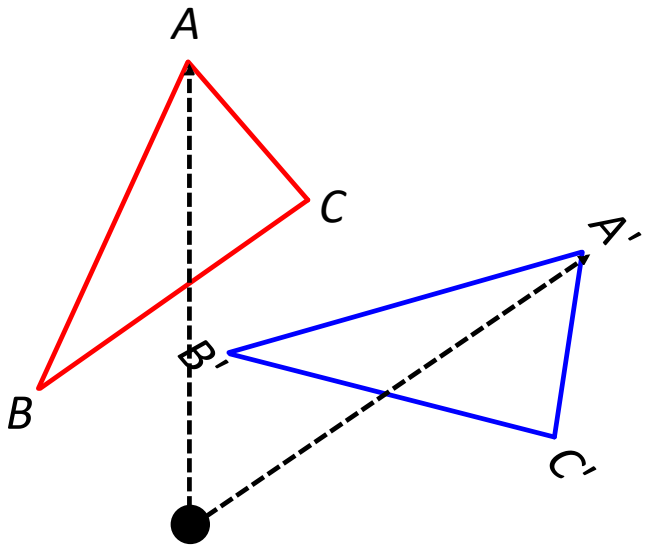
Translation

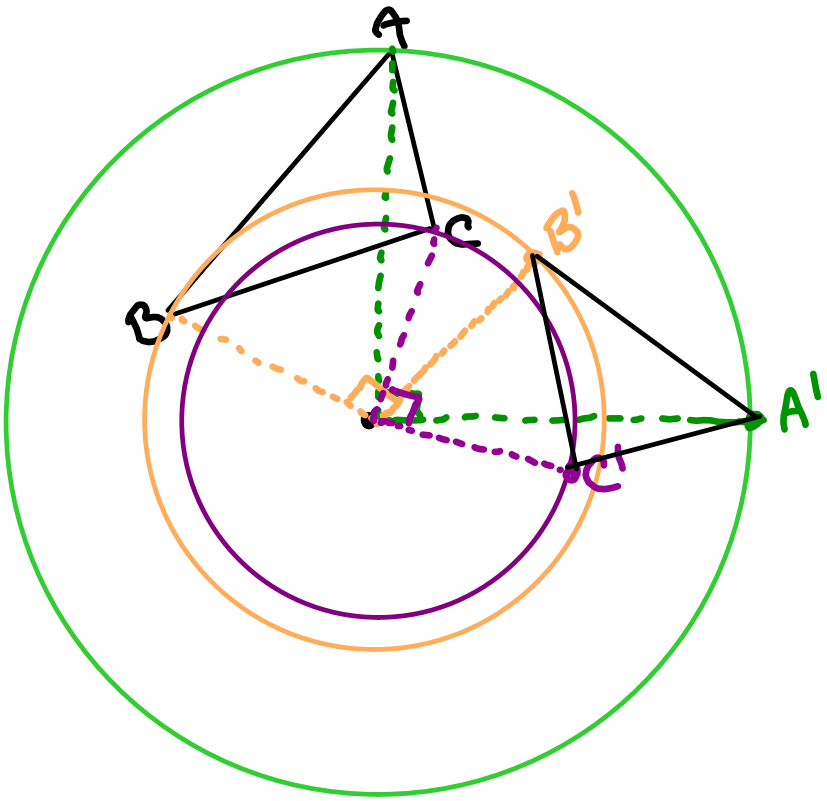
Each point of the pre-image is moved left, right, up, or down by the same number of units (aka "slide")



Rotation

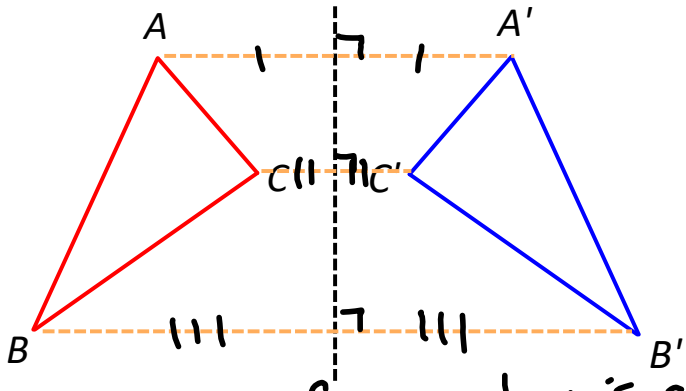
Turn a figure about a fixed point through a given angle and a given direction





Reflection

Each point of the pre-image has an image that is the same distance from the line of reflection as the original point but is on the opposite side of the line



* The axis of symmetry is a ⊥ bisector of each segment connecting the image to pre-image.

One non-isometric transformation:

Dilation

The pre-image is enlarged (or reduced) by a given factor around a given center point