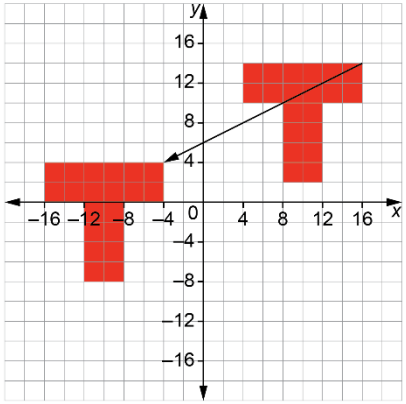
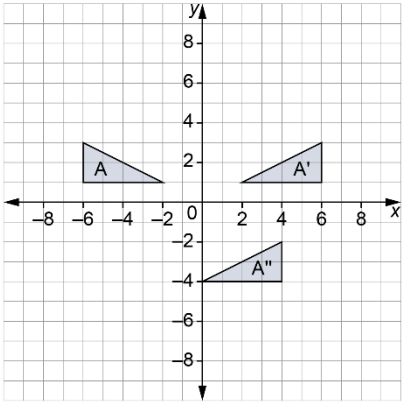
Geometry

Lesson 7 Assessment

Transformations on the Cartesian Plane

Transformations on the Cartesian Plane

Describes translations, reflections, and rotations about the origin on a Cartesian plane using mapping rules	Describes dilations about the origin on a Cartesian plane using mapping rules	Performs and describes combinations of transformations	Predicts the result of combinations of transformations
 $(x, y) \rightarrow (x - 20, y - 10)$	Vertices of initial shape: (–2, 2), (–2, –6), (6, –6), and (6, 2). Vertices of image: (–1, 1), (–1, –3), (3, –3), and (3, 1). $(x, y) \rightarrow (0.5x, 0.5y)$	Triangle A is reflected in the *y*-axis and translated left 2 and down 5.  $(x, y) \rightarrow (-x, y)$ then $(x, y) \rightarrow (x - 2, y - 5)$ Or $(x, y) \rightarrow (-x - 2, y - 5)$	Triangle A with vertices at (–2, 1), (–6, 1), and (–6, 3) is dilated by a scale factor of 2 and translated left 2 and down 5. Dilation: $(x, y) \rightarrow (2x, 2y)$ Translation: $(x, y) \rightarrow (x - 2, y - 5)$ Or, $(x, y) \rightarrow (2x - 2, 2y - 5)$

Observations/Documentation