



Properties of Dilations

Today's Standard

HSG.SRT.A1 - Verify experimentally the properties of dilations given by a center and a scale factor:

Cues	Notes
What is a dilation?	Dilation is a transformation that changes the size of a figure but not its shape.
What is the center of dilation?	The center of dilation is the fixed point in the plane about which all points are expanded or contracted.
What is a scale factor?	
How do dilations affect shapes?	The scale factor is the ratio of any two corresponding lengths in the pre-image and the image.
Can the center of dilation be outside the figure?	Dilations preserve the shape of the figure but change its size. Yes, the center of dilation can be any point, including those outside the figure.

Summary

Dilations are transformations that change the size of a figure while preserving its shape, defined by a center of dilation and a scale factor.