

Mathematics: Geometry Honors - *Modified from [Unit D - Polygons](#)*

Targeted Goals from Stage 1: Desired Results

Content Knowledge: Arithmetic and Geometric Mean, Similar polygons, Corresponding sides of similar polygons are proportional and the corresponding angles are congruent, AA~ for triangles, the ratio of the perimeter of two similar polygons equals the ratio of any pair of corresponding sides, CSSTP, CASTC, MET

Vocabulary: similar, dilation, reduction, proportion, arithmetic mean, geometric mean, mean proportion, ratio

Skills: arithmetic and geometric mean, solving problems involving the number of diagonals in a polygon, identifying whether a pair of polygons is similar, using proportional reasoning and congruent corresponding angles to find missing dimensions of similar polygons, applying theorems involving proportionality

Expectation:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Monday: 8.1 Ratio and Proportion Pg 325	Ratio vs. Proportion Arithmetic and Geometric Mean	Book Assignment Pages 329-331, #'s 3, 4, 7-9, 11-13, 18, 24, 27
Tuesday: 8.2 Similarity Pg 332	Dilation/Reduction 8.2 Similar Polygons Khan - Explaining Similarity	Book Assignment Pages 336-338, #'s 3, 6, 8-15, 18
Wednesday: 8.3 Methods of proving similarity Pg 339	Khan - Similarity Postulates Khan - Solving Similar Triangles	Khan Exercises Exercise 1 Exercise 2 Exercise 3

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Thursday: 8.4 Pg 345 (No Word Problems)	CSSTP, CASTC, MET	Book Assignment Pages 347-350, #'s 1, 2, 8-12, 17
Friday: Day off	Day off	Day off

Week criteria for success (attach student checklists or rubrics):

- recognize and work with proportions and ratios
- apply product and ratio theorems and calculate geometric means
- identify the characteristics of similar figures
- Use several methods to prove that triangles are similar

Supportive resources and tutorials for the week (plans for re-teaching): Khan Academy, Kuta Software worksheets, office hours, remediation material for similar polygons