

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

### Targeted Goals from Stage 1: Desired Results

**Content Knowledge:** the corresponding sides of similar polygons are proportional and the corresponding angles are congruent, if a line is parallel to one side of a triangle and intersects the other two sides, it divides those sides proportionally, if three or more parallel lines are intersected by two transversals, the parallel lines divide the transversals proportionally if a ray bisects an angle of a triangle, it divides the opposite side into segments that are proportional to the adjacent sides, simplifying radicals with numbers and variables, solving quadratics using factoring and square roots

**Vocabulary:** diagonal, similar, dilation, reduction, proportion, ratio, transversal, radicals, square root

**Skills:** using proportional reasoning and congruent corresponding angles to find missing dimensions of similar polygons, applying theorems involving proportionality, simplifying rational numbers, solving quadratics

### Expectation:

| Description of Task (s):                | Resources and Materials:                                                | Daily Checks<br>(Return to Google Classroom or snapshots from a cell phone)           |
|-----------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Monday:<br>8.4 Word Problems            | Word Problems Video                                                     | Book Assignment Word Problems (8.4): Pages 348-350, #s 9, 10, 14, 20                  |
| Tuesday:<br>8.5 Three Theorems          | Three Theorems Involving Proportions Video                              | Book Assignment Word Problems (8.5): Pages 355-356, #s 3, 4, 6, 8, 14, 20, 21, 29, 30 |
| Wednesday:<br>Chapter 8 Wrap / Catch Up | Chapter 8 Review doc                                                    | Chapter 8 Review doc                                                                  |
| Thursday:<br>9.1 Review of Radicals     | Khan Radicals Video 1<br>Khan Radicals Video 2<br>Khan Radicals Video 3 | Khan Exercise 1<br>Khan Exercise 2<br>Khan Exercise 3                                 |
| Friday:                                 | Khan Factoring Video                                                    | Khan Exercise 1                                                                       |

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|--------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 9.1 Quadratic Equations  | Khan Taking Square Roots Video<br>Khan Square Roots advanced Video | Khan Exercise 2<br>Khan Exercise 3                                          |

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

- Use several methods to prove that triangles are similar
- Use the concept of similarity to establish the congruence of angles and proportionality of segments
- Apply the three theorems that are frequently used to establish proportionality
- Simplifying radicals and solving quadratics using different techniques

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

Chapter 8 Extra Review WS