Grades 9-10
Distance Learning Module: 1   Week of: March 30

Mathematics: Geometry Honors - *Unit D - Polygons*

Targeted Goals from Stage 1: Desired Results

Content Knowledge: the sum of the measures of the angles of a triangle is 180, the measure of an exterior angle of a triangle is equal to the sum of the remote interior angles, the Midline Theorem for triangles, the No Choice Theorem for triangles, the sum of the interior angles of a polygon with n sides = $(n - 2)180$, the sum of the exterior angles of a polygon with n sides = 360 (regardless of n), the number of diagonals in a polygon with n sides = $\frac{n(n-3)}{2}$, regular polygons with interior and exterior angles

Vocabulary: exterior angle, interior angle, pentagon, hexagon, heptagon, octagon, nonagon, decagon, dodecagon, pentadecagon, n-gon, regular polygon, concave, convex, exterior angle, interior angle, diagonal, similar, dilation, reduction

Skills: using interior and exterior angles measures of a polygon to solve problems, solving regular polygon problems involving angles, applying the Midline Theorem, using AAS to find triangles congruent, 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: Introduction Video	Video on Google Classroom - Personalized	Google Form - Personalized
Tuesday: 7.1	Triangle Applications Theorems - 7.1	Bookwork: Pages 298-299, #s 1-5, 7
Wednesday: 7.2 (Honors) 7.3 (int and ext angle formulas) (L2)	Sum of interior and exterior angles Khan - 7.3 No Choice Theorem and AAS - 7.2 AAS Geogebra	Bookwork: Pages 304-306, # 1, 3, 5, 8, 9, 11, 17, 18 (Honors) Khan Assignment (L2)
Thursday: 7.3 (Honors) 7.3 (diagonals L2)	Video on Google Classroom	Bookwork: Pages 309-310, #s 1,2, 4-7, 10abc

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Friday: 7.4 Regular Polygons	Video on Google Classroom	Bookwork: Pages 316-317, #s 1-4

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

By the end of this module, students will be able to:

- Apply theorems about interior angles, exterior angles and midlines of triangles.
- Apply the No-Choice Theorem and AAS theorem (Honors only).
- Use some important formulas that apply to polygons.
- Recognize regular polygons, use formula to find the measure of an exterior angle of an equiangular polygon.

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