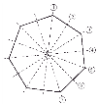
Honors Geometry – 2nd Quarter Assessment Grades Name:

CO: Congruence *SRT:* Similarity and Right Triangles *GPE:* Geometric Properties in Equations

Most recent grade entered in Powerschool. Each standard is assessed in class at least twice. Re-taking an assessment requires proof of completed homework. Full standards on web at: http://j.mp/tenngeometry

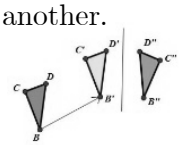
---

CO-A3b: Symmetry: Given a rectangle, parallelogram, trapezoid, or regular polygon, I can describe the rotations and reflections that carry it onto itself.



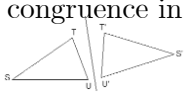
Date					
Score					

CO-A5b: Sequences of Transformations: Given a geometric figure and a rotation, reflection, or translation, I can draw the transformed figure. I can specify a sequence of transformations that will carry a given figure onto another.



Date					
Score					

CO-B6a: Predictions and Congruence: I can use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, I can use the definition of congruence in terms of rigid motions to decide if they are congruent.

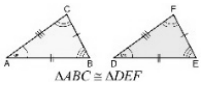


Date					
Score					

ART-PROJ: Geometry Art Project: Graded according to rubric; counted three times for fair weight.

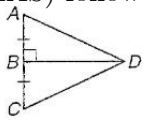
Date			
Score			

CO-B7a: Congruent Triangles: I can use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.



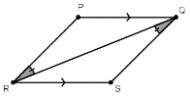
Date					
Score					

CO-B8a: Congruence Criteria: I can explain how the criteria for triangle congruence (ASA, SAS, SSS, and AAS) follow from the definition of congruence in terms of rigid motions.



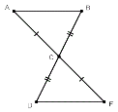
Date					
Score					

SRT-B5a: Proving Triangles Congruent: I can use congruence criteria for triangles to solve problems and to prove relationships in geometric figures.



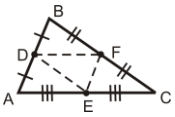
Date					
Score					

SRT-B5b: Advanced Triangle Congruence: I can use congruence criteria for triangles to solve complex problems and to prove relationships in geometric figures.



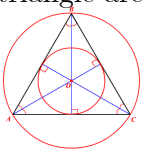
Date					
Score					

CO-C10a: Isosceles Triangles; Midsegments: I can prove theorems about triangles, including the fact that base angles of an isosceles triangle are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length.



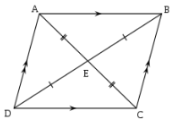
Date					
Score					

CO-C10b: Triangle Centers: I can prove theorems about triangles, including the fact that the medians of a triangle are concurrent; the angle bisectors are concurrent; the perpendicular bisectors are concurrent.



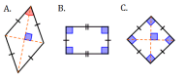
Date					
Score					

CO-C11a: Parallelograms: I can prove that parallelograms have congruent opposite sides and opposite angles.



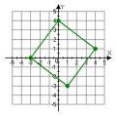
Date					
Score					

CO-C11b: More Parallelograms: I can prove that the diagonals of a parallelogram bisect each other and that rectangles are parallelograms with congruent diagonals, and theorems about rhombuses and squares.



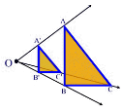
Date					
Score					

GPE-B4a: Coordinate Quadrilaterals: I can prove that given coordinates describe a type of quadrilateral.



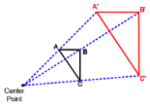
Date					
Score					

CO-A2b: Non-Rigid Motions: I can compare transformations that keep distance and angle to those that do not.



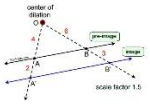
Date					
Score					

SRT-A1a: Basics of Dilation: I can perform and examine dilations involving scale factors and centers.



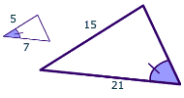
Date					
Score					

SRT-A1b: Dilation Lines: I can show that a dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged, and I can show that the dilation of a line segment is longer or shorter in the ratio given by the scale factor.



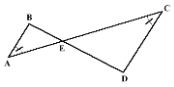
Date					
Score					

SRT-A2a: Similar Triangles Basics: I can use the definition of similarity in terms of transformations to decide if two figures are similar; I can explain using transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides.



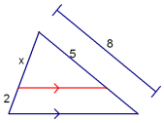
Date					
Score					

SRT-A3a: AA Similarity: I can use transformations to establish the AA criterion for two triangles to be similar.



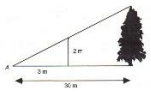
Date					
Score					

SRT-B4a: Triangle Proportions: I can prove and apply the fact that a line parallel to one side of a triangle divides the other two proportionally.



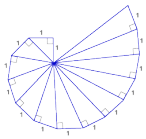
Date					
Score					

SRT-B5c: Using Similarity: I can use similarity criteria for triangles to solve problems and prove relationships in geometric figures; I can prove two triangles similar.



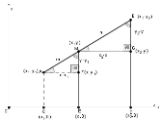
Date					
Score					

SRT-C8: Pythagorean Theorem: I can prove the Pythagorean Theorem and use it in applied contexts.



Date					
Score					

GPE-B6a: Partitioning a Segment: I can find the point on a directed line segment between two given points that partitions the segment in a given ratio.



Date					
Score					

MG-A3a: Design: I can apply geometric methods to solve design problems (for example, designing an object or structure to satisfy physical constraints or minimize cost)

Date					
Score					

Score conversion:

Score		Grade in PS
4:	Advanced (Complete understanding of the concept. Can apply this concept to situations beyond expectations.)	96
3:	Proficient (Understanding of the concept possibly with minor errors.)	86
2:	Basic (Some understanding of the concept with major errors. Needs to remediate this concept.)	66
1:	Below Basic (Does not have an understanding of this concept. Intense remediation is necessary.)	50
0:	No attempt was made.	0

If a student scores a 4 on their first two assessments, s/he will receive a 5 (or 100) for that standard.

Real World Geometry: An Art Project

DUE: NOVEMBER 7 2016

Geometry (and mathematics generally) is all around you, all the time. This project will explore this phenomenon in more detail. Your task is to create a poster, picture book, digital presentation, or other product (with prior teacher approval) with *original* images of 15 geometric terms from the choices below. You may use existing photos you have already taken, but not photos from magazines, newspapers, etc.

acute angle	incenter	rotation
adjacent angles	inscribed figure	sector
alternate interior angles	isosceles triangles	secant line
angle bisector	median (of a triangle)	semicircle
arc	midpoint	scalene triangles
chord	midsegment	segment bisector
circumcenter	obtuse angle	similar triangles/figures
circumscribed figure	parallel segments	skew lines (segments)
complementary angles	parallel planes	slope
concentric circles	parallelogram	square
congruent angles	perpendicular segments	supplementary angles
congruent triangles	plane	tangent line
coplanar points	prism	translation
corresponding angles	radius	transversal
diameter	ray	trapezoid
dilation	rectangle	vertical angles
equilateral polygon	reflection	
hemisphere	rhombus	

Most students will succeed by taking photographs for the terms, whether in your home or around the school or other places. Drawings are acceptable only if they represent real-world objects or formations (so no sketches of abstract shapes). You are encouraged to use your art form as an inspiration. [Photographs of dancers, instruments, etc.]

Comments:

- You must use original images or sketches. Do not use images from the internet, although image searches for "[term] real world" may help you get some inspiration.
- Images must be of actual objects/forms, not mathematical drawings or figures or abstract objects.
- Architecture, bridges, machines (cars, bicycles, computer parts, electronics, etc.) are good places to look
- Electronic submissions are fine: please attach a single file (Powerpoint, for example) as an email to mohyuddin_n@hcde.org . If you use Google Slides, share the file with the same address.
- If you are unsure about a term's meaning of if a picture matches the term, feel free to ask me or others.
- Do not procrastinate! It will be nearly impossible to complete this project in just a day or two.

Requirements

- Outline each object in the photograph/sketch so that the object is clearly marked for the viewer.
- Caption each image with the term itself and a short definition (Be sure your definition is mathematically correct. Some terms have multiple meanings.)
- Your images should have a cohesive theme and be presented with a creative title.
- Only one term per image. You may re-use the same image multiple times, but your project must have 15 images. Exception: Squares, rectangles, rhombuses, and parallelograms can only be used once, so don't use a photo of a square object for all 4 terms.

How will this be graded?

Each term/photo will be graded separately on two criteria: geometric accuracy (60%) and creativity (30%). The remaining 10% is for neatness, clarity, and theme/title. Accuracy and creativity will be graded on the same 4-point scale as assessments, with superb examples earning a 5. The final grade will be entered into Powerschool as an assessment task counted 3 times (so that it has as much weight as a typical weekly assessment).