COVER SHEET FOR VOCABULARY LIST: GEOMETRY
NAME: _____

Circle the names below of the sections being submitted.

SECTION	DEFNS.	DIAGRAMS	FORMATTING	TOTAL
1A: Angle pairs	out of 4	out of 4	out of 2	**OUT OF 10**
1B: Constructions	out of 4	out of 4	out of 2	**OUT OF 10**
1C: Rigid motions	out of 4	out of 4	out of 2	**OUT OF 10**
1D: Congruence	out of 4	out of 4	out of 2	**OUT OF 10**
2A: Similar triangles	out of 4	out of 4	out of 2	**OUT OF 10**
2B: Trigonometry	out of 4	out of 4	out of 2	**OUT OF 10**
3A: Area	out of 4	out of 4	out of 2	**OUT OF 10**
3B: Volume	out of 4	out of 4	out of 2	**OUT OF 10**
4A: Equation of line	out of 4	out of 4	out of 2	**OUT OF 10**
4B: Coord. geom. proofs	out of 4	out of 4	out of 2	**OUT OF 10**
4C: Other coord. geom.	out of 4	out of 4	out of 2	**OUT OF 10**
5A: Circles (angles)	out of 4	out of 4	out of 2	**OUT OF 10**
5B: Circles (segments)	out of 4	out of 4	out of 2	**OUT OF 10**

RUBRIC FOR EACH SECTION (OUT OF 10 POINTS)

DEFINITIONS *(4 PTS)*	DIAGRAMS *(4 PTS)*	FORMATTING (2 PTS)
4 PTS: All terms are correctly and clearly defined with relevant theorems and formulas.	**4 PTS:** All terms have hand-drawn diagrams that are clearly labeled, legible, and correct.	
3 PTS: Most terms are correctly defined. (A few have minor errors.)	**3 PTS:** Hand-drawn diagrams contain minor errors, OR a few terms lack hand-drawn diagrams.	
2 PTS: About half of terms have errors.	**2 PTS:** About half of hand-drawn diagrams are incorrect or missing.	**2 PTS:** Pages for each section are stapled together with a cover sheet
1 PT: Almost all terms are missing or incomplete.	**1 PT:** Most of the hand-drawn diagrams are incomplete, irrelevant, or missing.	**1 PT:** Pages for each section are not stapled together or are missing a cover sheet.
0 PTS: No definitions are included.	**0 PTS:** No hand-drawn diagrams.	**0 PTS:** Pages for each section are not stapled and cover sheet is missing.

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VOCABULARY LIST: GEOMETRY

Write definitions for each of the terms listed below. Use definitions from class notes. (For bullet points with more than one term, list each term separately.) FORMAT: Use an index card for each term OR use the template included in this file. For terms that are procedures (for example, a construction), briefly summarize the important steps. For each term, include all relevant facts and a labeled diagram. Write clearly – illegible work will be graded. Terms and definitions may be typed. To type math symbols, use Microsoft Word's built-in Equation Editor or the free MathType software (www.mathtype.com). *All diagrams must be drawn by hand.* Staple all pages for each section together. Attach the cover sheet in this file to the front of all sections that are submitted.

UNIT 1. PROOFS & CONSTRUCTIONS

A. Angle pairs

- collinear, coplanar, intersect
- line segment, ray, angle, vertex
- congruent angles or segments
- acute, right, straight, obtuse angles
- angle bisector, median, altitude
- ANGLE PAIRS: adjacent, vertical, supplementary (and linear pair), complementary
- angles centered around a point, adjacent angles on one side of a line
- parallel lines, transversal
  - ❑ include theorems about alternate interior, alternate exterior, corresponding, consecutive interior angles
- perpendicular lines
- interior and exterior angles of a polygon
  - ❑ Exterior Angle Theorem (for triangles)
- Triangles:
  - ❑ Triangle Inequality Theorem
  - ❑ scalene, isosceles (include vertex, legs, vertex angle, base angle, Base Angle Theorem), equilateral
  - ❑ acute, right, obtuse triangles
  - ❑ Pythagorean Theorem
- Substitution (in proofs), Transitive Property of Congruence

B. Constructions: explain how to construct:

- angle congruent to a given angle
- line segment congruent to a given segment
- perpendicular bisector of given segment
- bisector of a given angle
- parallel line (passes through given point)
- perpendicular line (passes through point on line, passes through point not on line)
- equilateral triangle, square, hexagon
- 30º, 45º, 60º, 90º angle (and their multiples)
- circumcenter, incenter, orthocenter, centroid

C. Rigid motions and constructions

- Line reflection
  - ❑ construct a line of reflection
- Rotation
  - ❑ rotate a figure around a point
  - ❑ construct center and angle of rotation
  - ❑ line symmetry, regular polygon, nontrivial rotational symmetry, identity transformation, mapping a figure onto itself vs. mapping a figure to itself
- Translation: Translate a figure along a vector
- Rigid motion, composition of transformations

D. Congruence

- Defn. of congruence, corresponding parts
- ASA, SAS, SSS, SAA, Hypotenuse-Leg Thm.
- Addition, Subtraction, Multiplication, Division, Reflexive, Partition Postulates
- Properties of parallelograms, rectangles, rhombi, squares
- Properties of trapezoids, isosceles trapezoids

UNIT 2. SIMILAR POLYGONS

A. Similar triangles

- Scale factor, dilation
- Dilation Theorem for Segments, Lines, Rays, Circles, Angles
- Dividing a line segment into *n* pieces
- Composition of dilations
- Defn of similarity
- Proving triangles similar: AA, SSS, SAS
- Angle Bisector Theorem
- corresponding parts of similar triangles
- Mean Proportional Theorem

B. Trigonometry

- Sine, cosine, tangent
- Inverse trig functions: $\sin^{-1}$, $\cos^{-1}$, $\tan^{-1}$
- Angle of elevation, angle of depression

UNIT 3. AREA AND VOLUME

A. Area

- area of circle, rectangle, square, triangle
- area of inscribed and circumscribed polygon
  - ❑ prove formulas for area and circumference of circle
- relationship between areas of similar polygons

B. Volume

- volume and surface area of rectangular prism, cylinder, pyramid, cone, sphere
- Cavalieri's Principle
- relationship between volumes of similar solids
- density

UNIT 4. COORDINATE GEOMETRY

Formulas

- distance, midpoint, slope formulas

A. Write the equation of a line:

- given slope, *y*-intercept (slope-intercept form)
- given point, slope (point-slope form)
- given two points (point-slope form)
- parallel to gn. line, passing through gn. pt.
- perpendicular to gn. line, passing through gn. pt.

B. Prove using coordinate geometry that:

- lines are congruent (distance)
- lines are parallel or perpendicular (slope)
- segments bisect each other (midpoint)
- triangles are right, isosceles, or equilateral
- quadrilaterals are parallelograms, rhombi, rectangles, trapezoids

C. Other coordinate geometry tasks

- distance from a point to a line
- area and perimeters of shapes
- divide segments proportionally
- centroid, incenter, circumcenter, orthocenter
- write equation of circle
  - ❑ complete the square to find radius of circle given equation
- solve quadratic-linear system of equations

UNIT 5. CIRCLES

A. Angle measures

- central angle, inscribed angle
- arc, major arc, minor arc, intercepted arc, arc length, sector
- angles formed by 2 intersecting chords
- angle formed by tangent and chord
- angle formed by: 2 tangents, secant and tangent, 2 secants
- radian measure

B. Segment lengths

- radius, diameter, chord, tangent, secant
- segments formed by 2 intersecting chords
- segments formed by: 2 tangents, secant and tangent, 2 secants

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GEOMETRY VOCABULARY LIST **Name: _____ Unit ____ Section ___**

DIRECTIONS: Fold along the dotted lines. Show one column and see if you can state the information in the other two hidden columns. Draw horizontal lines to separate definitions.

Vocabulary Term	Definition and Related Theorems	Labeled Diagram (include pictures)

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