GEOMETRY TERMS CHECKLIST:

Focus points for reading. Things you need to know. Not to be turned in!
You should be able to identify or define/sketch/describe these items and answer the questions related to each.

I. Undefined terms:
- 1 point
  - How wide is a point? How long?
  - Graphically, how do we represent a point?
  - In notation, how do we represent a point?
- 2 line
  - How wide is a line? How long?
  - Graphically, how do we represent a line?
  - In notation, how do we represent a line?
- 3 plane
  - How wide is a plane? How long?
  - Graphically, how do we represent a plane?
  - In notation, how do we represent a plane?
- 4 space

II. Lines
- 1 coplanar
  - 2 intersecting
    - 3 perpendicular
  - 4 parallel
- 5 non-coplanar
  - 6 skew
- 7 concurrent
  - Can three lines intersect each other without being concurrent?

III. Planes
- 1 Parallel
- 2 Intersecting
  - If two planes are parallel, their intersection is.... if intersecting, their intersection is ....
- 3 Dihedral angle

IV. Points, Lines & Planes relationships and other terminology
- 1 collinear points (& noncollinear)
  - *Why don't we talk about <u>two</u> points being "collinear"?*
  - "Between"
- 2 half-line
- 3 line segment
- 4 ray
  - *What is the difference between a half-line and a ray?*
- 5 angle
- 6 dihedral angle

V. More about angles
- 1 measure of an angle
- 2 degree, minute, second
- 3 right, acute, obtuse, straight
- 4 complementary angles, supplementary angles
- 5 vertical
- 6 adjacent

VI. Transversal (of two lines ℓ and m)
- 1 Corresponding angles
- 2 Alternate interior angles
- 3 Alternate exterior angles
  - *What is the special relationship between "corresponding angles" when ℓ and m are parallel?*
  - *Do alternate interior angles and alternate exterior angles have this relationship?*
  - *Does this relationship hold when the two lines are not parallel?*

VII. Curves
Can you recognize and sketch some examples of each?
1 plane curve
2 simple curve
3 closed curve
4 simple closed plane curve
Jordan Curve Theorem (not in text)

VIII. Polygon (what is ?)
1 Vertices, Edges
2 Diagonals
3 Regular Polygon
4 n-gon
5 Triangle, Quadrilateral, Pentagon, Hexagon, Heptagon, Octagon, Decagon, Dodecagon, Icosagon

IX. Triangles
1 Triangles by sides: Equilateral Isosceles Scalene
2 Triangles by angles: Right Acute Obtuse
Can a triangle contain two right angles? Three obtuse angles?
Can you draw an isosceles acute triangle? isosceles obtuse △? an obtuse equilateral △?
3 Altitude Median

X. Quadrilateral
1 Quads by sides: Scalene
2 Special quadrilaterals:
Trapezoid Isosceles-trapezoid Parallelogram Rhombus Rectangle Square Kite
The set of all squares is a subset of the set of all rectangles. What other such facts are true?
What is the relationship between the above? Are the following statements true or false?
A square is a rectangle. A rhombus is a parallelogram.
A parallelogram is a trapezoid. A square is an isosceles trapezoid.

XI. Circle
1 Center Radius Diameter
2 Arc Semicircle Major arc Minor arc
On a circle mark two points A & B.
How do we distinguish between the major and minor arcs ending at A & B?
3 Secant Chord Tangent
4 Central angle
5 Inscribed angle

SPATIAL FIGURES:

XII. Plane region (may not be in text)
1 Convex plane region
2 Non-convex plane region
3 Polygonal Region (of a plane)

XIII. Simple, closed surface

XIV. Polyhedron
1 Face Vertex Edge
2 Euler's Formula.
3 Platonic solid (Convex regular polyhedron)
Tetrahedron Octahedron Icosahedron Cube Dodecahedron

XV. Other spatial surfaces & solids
1 Prism:
Base of, Lateral faces of, Edges, Vertices
Right prism, Oblique prism
2 Pyramid
Base of, Apex of, Lateral faces of, Edges, Vertices
3 Cone
Base of, Apex or Vertex of, Lateral surface of
Truncated cone Right cone Oblique cone
4 Cylinder
Base and Lateral surface of
Right cylinder Oblique cylinder Circular cylinder
5 Sphere