**Geometry Review Topics – Chapter 8**

* Radius/tangent formulas with circles
  + A radius/tangent forms a right angle, allowing use of trig ratios and Pythagorean theorem
  + Tangent/tangent angles are add up to  with minor arc they form
* Circumference and arc length of circles
  + Circumference:  or 
    - r is the radius of the circle and d the diameter
  + Arc Length:  or 
    - r is the radius, A is the central angle in degrees, and  is the central angle in radians
* Area and sector areas of circles
  + Area: 
    - r is the radius of the circle
  + Sector Area:  or 
    - r is the radius, A is the central angle in degrees, and  is the central angle in radians
* Surface area and volume of circular solids
  + Cylinder:  and 
    - r is the radius of the base, h is the height
  + Cone:  and 
    - r is the radius of the base,  is the slant height, h is the height
* Areas of equilateral and isosceles triangles
  + Equilateral triangle only: 
    - s is the length of one side of the triangle
  + Any triangle (given 1 side and perpendicular height): 
    - b is the base, h is the height, base and height are perpendicular
  + Non-right triangle (given 2 sides and included angle): 
    - a and b are any two sides in a triangle,  is the angle between
  + Any triangle (given 3 sides and no angles): 
    - a,b, c are the side lengths, s is the semiperimeter
* Special right triangles (triples, 30-60-90, 45-45-90)
  + 4 main triples: 3-4-5, 5-12-13, 8-15-17, 7-24-25
  + 30-60-90: 
  + 45-45-90: 
* Basic trig ratios (sin, cos, tan)
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