

Advanced Geometry – Test: Unit 8 Outline
250 Points
Friday, January 13, 2012

I. Terminology (Consult "Circles - Terminology" sheet for full details)

- Be able to name and/or identify any of these items:
(Congruent Circles, Concentric Circles, Chord, Diameter, Secant, Tangent, Central Angle, Inscribed Angle, Arc, Major Arc, Minor Arc, Semicircle.)

II. Constructions (See Properties of Chords)

- Be able to construct the center of a circle given an arc or complete circle.
 - Find the perpendicular bisector of two chords
- Be able to find the length of a given arc using these constructions

III. Angles involving Circles

- Be able to PROVE these results! (#2 vertex INSIDE and #3 vertex OUTSIDE the circle ONLY)
- Be able to work with all of these situations.
- Be able to solve "really involved" angle problems. (The ones with many angles to find.)
- Be able to find arc length using these results (Like homework.)

IV. Tangent Lines

- Know the two important tangent properties.
- You MUST be able to do Problems #1-3 on the sheet "More Interesting Problems with Tangents"
- Look over all of the "Tricky Tangent Problems?" sheet
 - You can bet on having at least a few of these "challenging" ones on the test!

V. Lines involving Circles

- Be able to find the length of parts of such chords, secants, and tangents
- Be able to use this to find related items (area, circumference, etc)
- Be able to PROVE these results (#1 for intersecting chords; #3 for intersecting secants ONLY)

VI. Law of Sines and Law of Cosines

- Be able to use them.
- Be able to use these results to solve application problems.

Look over Homework / In Class Problems in order to be completely prepared for this test!