

CP Geometry – Test: Unit 1 Outline
250 Points
Thursday, September 22, 2011

- I. Terms / Definitions / Postulates / Naming Geometric Figures (see back of the sheet)**
- Know the definitions (you will have to write out a definitions).
 - Know how to name parts of figures, determine how many segments or angles are in a figure, and apply simple probability to a figure, etc.
- II. Box Principle / Pigeonhole Principle**
- Be able to use the ideas of the Box Principle to solve problems.
(How many people in a room at minimum to guarantee 13 people were born in the same month?)
- III. Number Patterns**
- Identify the next number in a sequence and provide an explanation for your choice
 - Generate a rule for the n th term of a sequence (either a number or picture sequence)
 - Know various techniques for finding "weird" $a_n = ?$ [Skeleton Tower, etc]
 - Picture Patterns ... These could be big!
 - Work with Arithmetic Sequences (constant difference)
- IV. Segments and Angles**
- Know how to use the "Segment Addition Postulate"
 - Know how to solve segment word problems
 - Know how to use the "Angle Addition Postulate"
 - Know how to solve for lengths of segments and measures of angles algebraically
(Especially when systems of equations emerge - elimination)
- V. 4 Special Points in Triangles / Constructions**
- Incenter, Circumcenter, Centroid, Orthocenter
 - ***Know how to construct each (and the corresponding circle) using a compass and straightedge***
 - Given a picture, be able to identify which point is illustrated
 - Be able to construct the circle containing any given three noncollinear points

~~~~~ **NOTES** ~~~~~

- Calculators, compasses, protractors, and rulers are all required for the exam.
- This is a ***major*** grade ... prepare accordingly!
- You will have the entire block, if necessary; take responsibility for your performance!

**A. Terms to Know... (Be able to define or describe the following)**

|                       |                        |
|-----------------------|------------------------|
| Point                 | Segment Bisector       |
| Line                  | Midpoint of a Segment  |
| Plane                 | Perpendicular Bisector |
| Segment               | Angle Bisector         |
| Ray                   | Incenter               |
| Angle                 | Circumcenter           |
| Collinear Points      | Median of a Triangle   |
| Coplanar Points       | Centroid               |
| Congruent Segments    | Altitude of a Triangle |
| Congruent Angles      | Orthocenter            |
| Complementary Angles  | Congruent Figures      |
| Supplementary Angles  | Postulate              |
| Adjacent Angles       | Inductive Reasoning    |
| Linear Pair of Angles | Sequence               |
| Right Angle           | Perpendicular Lines    |
| Acute Angle           | Parallel Lines         |
| Obtuse Angle          |                        |

**B. Postulates**

- Know the 5 postulates on the "Building Blocks of Geometry" sheet
- Segment Addition Postulate
- Angle Addition Postulate

**C. Naming Figures / Geometry Symbols**

- Know how to name figures appropriately (angle, segment, line, ray, plane, etc)
- Know the symbol for congruence

**D. Look through your notes, quiz, and homework; hopefully you've put in time daily! If so, be confident and prepared!**