

CP Geometry – Test: Unit 3 Outline
250 Points
Friday, October 21, 2011

- I. Terms / Definitions / Postulates / Theorems (see back of the sheet)**
- II. Lines cut by a Transversal**
- Know the special angle pairs and their properties / theorems (see back of sheet)
 - Find missing measures of angles if the lines are parallel
 - Using algebraic expressions, find the measures of missing angles
 - Determine which lines must be parallel (systems of equations problems, etc)
- III. Interior and Exterior Angles of Polygons**
- Know the sum of the measures of interior angles in a triangle (and how to use it)
 - Know how to find the measure of an exterior angle in a triangle
 - Know how to find the sum of interior and exterior angles in a polygon
 - Know how to find the measure of each interior and exterior angle in a regular polygon
 - Involved angle problem
- IV. Figures in the Coordinate Plane**
(Quadrilateral, Trapezoid, "P-gram", Rhombus, Rectangle, Square, Right Triangles, Equilateral Triangles, Isosceles Triangles)
- Know the properties of each of these
 - Be able to calculate the midpoint, slope, or length of a segment given two points
 - Be able to analyze a figure in the coordinate plane, state the most specific term for the figure, and prove your result using slope, distance formula, etc.
 - Be able to find the missing point of a figure in the coordinate plane (and show enough information to convince me your point is correct)
 - **BE ABLE TO WRITE UP YOUR "PROOF" AS WE DID IN CLASS**
- V. Transformations in the Coordinate Plane $T(x,y)$**
- Be able to perform a stated transformation on a given figure.
 - Be able to write a missing transformation rule for a completed motion.

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

- Calculators, writing utensils, highlighters, and rulers are all allowed on the exam.
- This is a *major* grade (250 points) ... prepare accordingly!
- You will have the entire block, if necessary; take responsibility for your performance.
  
- Review Date: Thursday, October 20, 2011
- Test Date: Friday, October 21, 2011
  
- **Look over the key for Quiz #3**

## Terms / Definitions / Postulates / Theorems

Items you could have to define on the test are followed by a \*\*

### Definitions

Alternate Exterior Angles \*\*

Alternate Interior Angles \*\*

Concave Polygon (**draw one**)

Convex Polygon (**draw one**)

Corresponding Angles \*\*

Equilateral Polygon \*\*

Equiangular Polygon \*\*

Equilateral Triangle \*\*

Isosceles Triangle \*\*

Parallelogram \*\*

Polygon

Quadrilateral \*\*

Rectangle \*\*

Regular Polygon \*\*

Remote Interior Angles \*\*

Same-Side Interior Angles \*\*

Slope

Square \*\*

Transversal \*\*

Trapezoid \*\*

Triangle

### Theorems / Postulates / Major Results

Corresponding Angles Postulate

Alternate Interior Angles Theorem

Alternate Exterior Angles Theorem

Same-Side Interior Angles Theorem

Converse of the Corresponding Angles Postulate

Converse of the Alternate Interior Angles Theorem

Converse of the Alternate Exterior Angles Theorem

Converse of the Same-Side Interior Angles Theorem

Parallel Postulate \*\*

Triangle Interior Angles Theorem

Triangle Exterior Angles Theorem

Sum of Interior Angles in a Polygon

Measure of each Interior Angle in a Regular Polygon

Sum of Exterior Angles in a Polygon

Measure of each Exterior Angle in a Regular Polygon

Slopes of Parallel Lines \*\*

Slopes of Perpendicular Lines \*\*

Special Slopes (Horizontal / Vertical) \*\*

Midpoint Formula

Distance Formula