**HONORS GEOMETRY**

**Chapter 4**

isosceles triangle  
scalene triangle  
auxiliary line  
congruent polygons  
corresponding parts  
included angle  
included side  
base angles  
transformation  
preimage  
image  
reflection  
translation  
rotation  
acute triangle  
equiangular triangle  
obtuse triangle  
right triangle  
equilateral triangle  
isosceles triangle  
scalene triangle  
exterior angle  
remote interior angles  
flow proof

corollary  
Triangle Angle-Sum Theorem

Triangle Angle-Sum Proof  
Exterior Angle Theorem  
Triangle Angle-Sum corollaries  
Third angles theorem  
Properties of triangle congruence  
Side side side SSS congruence

Included angle  
Side angle side SAS congruence  
Included side

Angle side angle ASA congruence  
Angle angle side AAS congruence  
Rt riangle congruence, LL, HA, LA, HL  
Isosceles triangle theorem  
Converse of Isosceles triangle thm  
Isometry  
Coordinate proof

**Chapter 5**

Perpendicular bisector  
Concurrent lines  
Point of concurrency  
Circumcenter  
Incenter  
Median  
Centroid  
Altitude  
Orthocenter  
Indirect reasoning  
Indirect proof  
Proof by contradiction  
Perpendicular bisector theorem  
Converse of the perp.bisector thm   
Angle bisector theorem  
Converse of the angle bisector thm  
Definition of inequality  
Prop. of inequalities for real numbers  
Exterior angle inequality  
Angle side relationships in triangles  
Steps how to write an indirect proof  
Triangle inequality theorem

**Chapter 6**

Polygon interior angles sum  
Polygon exterior angles sum

Diagonal  
Parallelogram  
Four properties of a parallelogram  
Prove opposite angles are congruent  
Properties of diagonals of a parallelogram  
Four conditions for parallelograms  
Five ways to prove a quadrilateral is a parallelogram  
Rectangle   
Diagonals of a rectangle  
Prove a parallelogram is a rectangle  
Rhombus  
Thms for the diagonals of a rhombus  
Square  
Trapezoid  
Bases of a trapezoid  
Legs of a trapezoid  
Isosceles trapezoid  
Mid segment of a trapezoid

Theorems of isosceles trapezoids  
Trapezoid mid segment theorem  
Kite

Theorems for kites  
Venn diagram for quadrilaterals

**Chapter 7**

Ratio  
Proportion  
Means  
Extremes  
Cross products  
Similar polygons  
Scale factor  
Dilation   
Similarity transformation  
Enlargement  
Reduction  
Scale model  
Scale drawing  
Extended ratios  
Equivalent proportions  
Fibonacci sequence  
Perimeters of similar polygons  
Angle angle AA similarity  
Side side side SSS similarity  
Side angle side SAS similarity  
Properties of similar triangles  
Mid segment of a triangle  
Triangle proportionality theorem  
Conv. of the Triangle proportion thm

Triangle mid segment theorem  
Proportional parts of parallel lines  
Congruent parts of parallel lines  
Special segments of similar triangles  
Triangle angle bisector  
Center of a dilation  
Scale factor of a dilation