**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