All Formulas

Interior Angles:	Sum of the measures of interior angles of a triangle = 180
Exterior Angle of a Triangle:	m∠1= m∠A+m∠B
Exterior Angles:	Sum of the measure of exterior angles of a convex polygon = 360
Given Point:	A(x1,y1) and B(x2,y2)
Midpoint:	(x1+x2/2, y1+x1/2)
Distance Formula:	
Slope	rise/run= y2-y1/x2-x1
Slope- Intercept form of linear equation with slope m and y-intercept b:	y=mx+b
Zero slope:	Horizontal
Negative slope:	Goes down left to right
Positive slope:	Rises left from to the right

All Formulas (cont)

Undefined Slope:	vertical slope of parallel lines: same slope. Slope of perpendicular lines: m1. m2=-1 : write an equation from the graph then fin the slope & y value.

Symbols

AB - Line AB

Ab - Segment AB

AB - Ray AB

≅ - Congruent

∠ABC - Angle ABC

m∠A - Measure of angle A

|- Perpendicular to

|| - Parallel to

m - Slope

Δ ABC - Triangle ABC

< - Is less than

> - Is greater than

≠- Is not equal to

≅ - Is not congruent to

All Properties:

Addition Property of Equality - A=B then A+C= B+C

Subtraction Property of Equality -

Multiplication Property of Equality -

Devision Property of Equality -

Reflexive Property of Equality - A=A; AB=AB

Reflexive Property of Congruence - AB=(C); CD=AB

Transitive Property of Equality - A=B; B=C; then A=C

All Properties: (cont)

Transitive Property of Congruence - A=(C) B B=C; then A=(C) C

Substitution Property - If A=B then A can be substituted for B

Distrubutive Property - A(B+C)= AB+AC

Symmetric Property of Equality -If AB=CD, then CD=AB

More Angles

Acute,

Right,

Obtuse

Straight angles

Complementary

Adjacent

Supplementary

Medians

Altitudes

Scalene	No congruent sides
Equalateral Triangle	All sides are congruent
Isosceles Triangle	2 congruent sides

Chapter 3.1

Corresponding Angles:	When they have corresponding positions
Alternate Interior:	If they lie between the two lines and on opposite sides of the transversal
Alternate Exterior:	If they lie outside the two lines and on opposite sides of the transversal

Chapter 3.1 (cont)

Consecutive Interior:	If they lie between the two lines and on the same side of the transversal

All Angle/Triangle Info + Extra Vocab

Acute Angle:	An angle between 0 and 90 degrees.
Acute Triangle:	Triangle with three acute angles
Adjacent Angles:	
Altitude of a Triangle	The perpendicular segment from one vertex of the triangle to the opposite side/ to the line that contains the opposite side.
Angle:	Has two different rays with the same endpoint. Rays- Sides of the angle. Endpoint- The vertex of the angle.
Angle Bisector:	A ray that divides an angle into two angles that are ≅.

All Angle/Triangle Info + Extra Vocab (cont)

Between:	When 3 points lie on a line, you can say that one point is between the other two
Bioconditional Statement:	A statement that contains the phrase "if and only if"
Centroid of a Triangle:	The point of concurrency of the three medians of the triangle.
Circumference:	Distance around a circle
Collinear Points:	Points that lie on the same line
Complementary Angles:	Two angles whose measures have the sum 90. The sum of the measures of an angle and its complement is 90.
Conditional Statement	A type of logical statement that has two parts- Hypothesis + Conclusion... ex: If m∠A=90, then ∠A is a right angle.

All Angle/Triangle Info + Extra Vocab (cont)

Congruency transformation/ Isometry	1- Translation. 2- Reflections, 3- Rotations
Conjecture:	An unproven statement that is based on observation... ex: all prime numbers are odd
Contrapositive:	The equivalent statement formed by negating the hypothesis and conclusion of the converse of a conditional statement.
Convex Polygon, Concave	A Polygon that is not convex is non-convex/concave. Convex Polygons = No "dents", Has a "dent" or "dents"
Coplanar points	Points that lie in the same plane
Equiangular Polygon, Equilateral,polygon, Equilateral triangle,isosceles,	Three congruent sides, all of its sides congruent, three congruent sides, at least 2 congruent sides

All Angle/Triangle Info + Extra Vocab (cont)

Heptagon, Hexagon, Pentagon	Polygon with 7 sides, 6 sides, 5 sides,
Hypotenuse	The side of the opposite the right angle.
Skew lines	Lines that don't intersect + are NOT coplanar

All Postulates

Ruler "Postulate" - The points on a line can be matched one to one with the real numbers.The real number number that corresponds to a point is the coordinate of the point.

Segment Addition " - If B is between A & C, then AB+BC=AC. If AB+BC=AC then B is between A & C

Protractor " - The measure of ∠AOB is equal to the the absolute value of the difference between the real numbers for OA & OB.

Segment Addition "- If B is between A & C, then AB + BC= AC. If AB+BC=AC, then B is between A & C

Angle Addition " - If P is in the interior of ∠RST, then m∠RST= m∠RSP+ m∠PST.

5 - Through any two point there exists exactly one line

6 - A line contains at least two points

7 -If two lines intersect, then their intersection is exactly at one point.

8 - Through any three noncollinear points there exists exactly one plane

All Postulates (cont)

9 - A plane contains at least three noncollinear points

10 - If two point lie in a plane, then the line containing them lies in the plane

11 -If two planes intersect, then their intersection is a line

12 - Linear pair " - If two angles form a linear pair, then they are supplementary.

Corresponding Angles Postulate & its Converse- "If two parallel lines are cut by a transversal", then the pairs of corresponding angles are ≅. " " so the corresponding angles are ≅, then the lines are ||.

Slopes of Parallel "Lines" - In a coordinate plane two nonvertical lines are parallel if & only if they have the same slope. Any 2 vertical lines are ||.

Slopes of perpendicular " " - In a coordinate plane, two nonvertical lines are perpendicular if and only if the product of their slopes is -1. Horizontal lines are perpendicular to vertical lines

SSS "Congruence Postulate" -If 3 sides of a triangle are congruent to 3 sides of another triangle, then they are congruent

SAS " -If 2 sides and 1 included angle of a triangle are congruent to the 2 sides and angle of another triangle, then they are congruent

ASA " -If 2 angles and an included side of a triangle are congruent to 2 angles and included side of another triangle, then they are congruent

All Postulates (cont)

AA Similarity "-If 2 angles of one triangle are congruent to 2 angles of another triangle, then they are similar

All Theorems

Right Angles Congruence "Theorem"-

Congruent Supplements "-

Congruent Complements " -

Vertical Angles ≅ "-

Alternate Interior Angles " -

^ Exterior Angles " -

Consecutive Interior Angles " -

Alternate Interior Angles Converse -

^ Exterior Angles Converse -

Consecutive Interior Angle Converse -

Transitive Property of Parallel Lines -

Perpendicular Transversal-

Lines Perpendicular to a Transversal-

Triangle Sum -

Corollary -

Exterior Angle-

Third Angles-

Hypotenuse Leg Congruence-

AAS Congruence-

Base Angles-

Corollary -

Converse of the Base Angle -

Midsegment -

Perpendicular Bisector -

Converse of the Perpendicular Bisector -

Angle Bisector -