GEOMETRY THEOREMS...

• ANGLE THEOREMS:



(OAT) Opposite Angle Theorem → If two lines intersect then the opposite angles are equal.



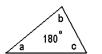
(CAT) <u>Complementary Angle Theorem</u> → If two angles are equal, then their complements are equal.

Note: Complementary angles sum to 90°.



(SAT) Supplementary Angle Theorem → If two angles are equal, then their supplements are equal.

Note: Supplementary angles sum to 180°.



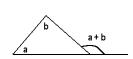
(SATT) Sum of the Angles of a Triangle Theorem → The sum of the interior angles of a triangle is 180°.

Note: When two angles of one triangle are respectively equal to two angles of another triangle, the third angles are equal.



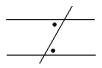
(ITT) <u>Isosceles Triangle Theorem</u> → The angles opposite the equal sides are equal.

Note: Isosceles triangles have 2 equal sides.



(EAT) Exterior Angle Theorem → An exterior angle of a triangle is equal to the sum of the interior and non-adjacent angles.

• TRANSVERSAL PARALLEL THEOREMS:



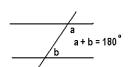
(AIA) <u>Alternate Interior Angles</u> → When a transversal intersects a set of parallel lines, the alternate interior angles are equal.

Note: "Z" pattern



(CA) <u>Corresponding Angles</u> → When a transversal intersects a set of parallel lines, the corresponding angles are equal.

Note: "F" pattern



(CIA) <u>Co-Interior Angles</u> → When a transversal intersects a set of parallel lines, the co-interior angles sum to 180°.

Note: "C" pattern