7.1 - Angle Notes October 21, 2019

## Key Terms...

Acute angle - measure is between 0° and 90°



Right angle - measure is 90°; the two rays are perpendicular to each other



Obtuse angle - measure is between 90° and 180°



Straight angle - measure is 180°



Reflex angle - measure is between 180° and 360°



Apr 13-8:06 AM

## **Angle Theorems**



(OAT) <u>Opposite Angle Theorem</u> - If two lines intersect then the opposite angles are equal



(CAT)  $\underline{\text{Complementary Angle Theorem}}$  - Two angles add up to  $90^{\circ}$ 



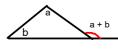
(SAT) Supplementary Angle Theorem - Two angles add up to  $180^{\circ}$ 



(SATT) Sums of the Angles in a Triangle Theorem 
The angles in a triangle add up to 180<sup>0</sup>



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



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

## **Traversal Parallel Theorems**

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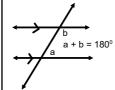
(AIA) <u>Alternate Interior Angles</u> - When a transversal intersects a set of parallel lines, the alternate interior angles are equal.

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.



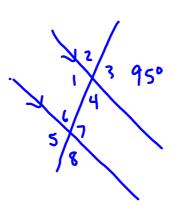
(CIA) <u>Co-interior Angles</u> - When a transversal intersects a set of parallel lines, the co-interior angles sum to 180°.

Note: C pattern

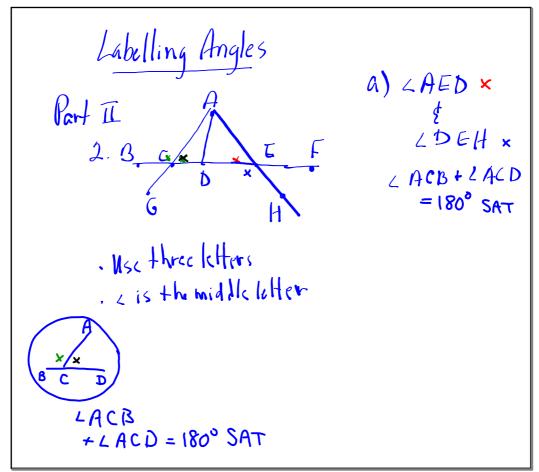


(AEA) <u>Alternate Exterior Angles</u> - When a transversal intersects a set of parallel lines, the alternate exterior angles are equal.

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