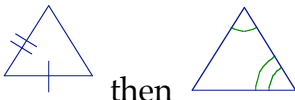
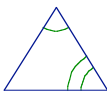
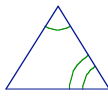
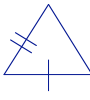


## CHAPTER 5

Linear pair comparison	If you have a linear pair and one angle is obviously larger than the other, then you can say that $m\angle A > m\angle B$ .
def $\perp$ bisector	A $\perp$ bisector of a side of a $\Delta$ is a line, segment, or ray that passes through the midpoint of the side and is $\perp$ to that side
Pts on $\perp$ bisector Th.	Any point on a $\perp$ bisector is equidistant from the endpoints of the segment. [Converse also true]
Pts on $\sphericalangle$ bisector Th.	Any point on an $\sphericalangle$ bisector is equidistant from the sides of the angle. [Converse also true]
def median	A median is a segment whose endpoints are a vertex of a $\Delta$ and the midpoint of the side opposite the vertex.
def altitude	An altitude of a $\Delta$ is a segment from a vertex to the line containing the opposite side and $\perp$ to that line.
def Inequality	$a > b$ if and only if there is a positive number $c$ such that $a = b + c$ .
Comparison property	$a < b$ , $a = b$ , or $a > b$
Transitive $\neq$	If $a < b$ and $b < c$ , then $a < c$ .
AP Ineq	If $a > b$ , then $a + c > b + c$ .
EAT $\neq$	If an angle is an exterior angle of a triangle, then its measure is greater than the measure of either of its corresponding remote interior angles.
if  then 	If one side of a triangle is longer than another side, then the angle opposite the longer side has a greater measure than the angle opposite the shorter side.
if  then 	If one angle of a triangle has a greater measure than another angle, then the side opposite the greater angle is longer than the side opposite the lesser angle.
$\Delta$ Ineq.	The sum of the lengths of any two sides of a triangle is greater than the length of the third side.
SAS Ineq. [ Hinge Theorem ]	If two sides of one triangle are congruent to two sides of another triangle and the included angle in one triangle has a greater measure than the included angle in the other, then the third side of the first triangle is longer than the third side in the second triangle.

SSS Ineq.

If two sides of one triangle are congruent to two sides of another triangle and the third side in one triangle is longer than the third side in the other, then the angle between the pair of congruent sides in the first triangle is greater than the corresponding angle in the second triangle.