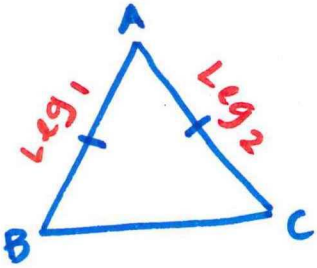
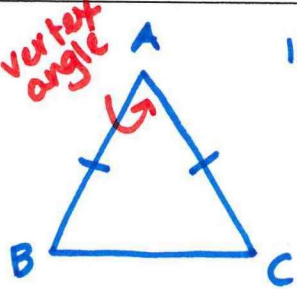
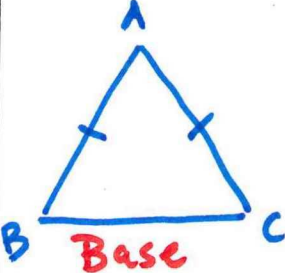
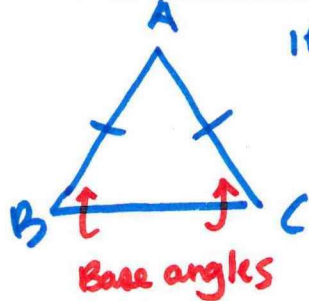


Use Isosceles and Equilateral Triangles

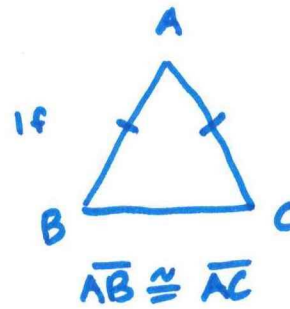
Vocabulary	Definition	Example
LEGS	The <u>legs</u> of an isosceles triangle are the two <u>congruent sides</u> .	 <p>IF $\triangle ABC$ is isosceles and $\overline{AB} \cong \overline{AC}$, then \overline{AB} and \overline{AC} are the legs.</p>
VERTEX ANGLE	The <u>vertex angle</u> of an isosceles triangle is the angle formed by the legs. <u>included angle between the legs</u>	 <p>IF $\triangle ABC$ is isosceles and $\overline{AB} \cong \overline{AC}$, then $\angle A$ is the vertex angle.</p>
BASE	The <u>base</u> of an isosceles triangle is the side that is <u>not the leg</u> .	 <p>IF $\triangle ABC$ is isosceles and $\overline{AB} \cong \overline{AC}$, then \overline{BC} is the base.</p>
BASE ANGLES	The base angles of an isosceles triangle are the two angles adjacent to the base. <u>angles formed by the 2 legs and the base</u>	 <p>IF $\triangle ABC$ is isosceles and $\overline{AB} \cong \overline{AC}$, then $\angle B$ and $\angle C$ are the base angles.</p>

BASE ANGLES THEOREM

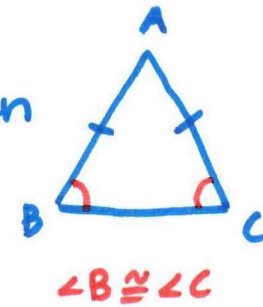
BA Thm

If two sides of a triangle are congruent, then the angles opposite them are congruent.

Base angles of an isosceles Δ are congruent by Base \angle s Thm.



, then

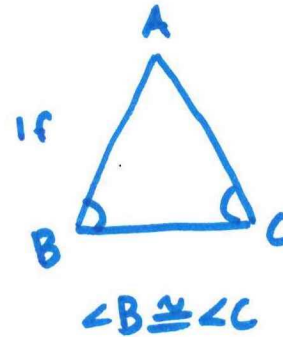


Base \angle s Thm.
BA Thm.

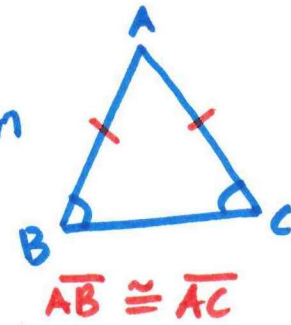
CONVERSE of BASE ANGLES THEOREM

CBA Thm

If two angles of a triangle are congruent, then the sides opposite them are congruent.



, then

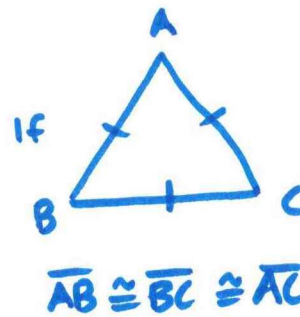


CBA Thm

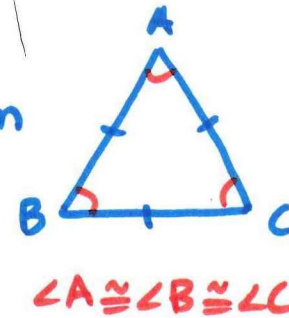
COROLLARY to the BASE ANGLE THEOREM

Cor. BA Thm.

If a triangle is equilateral, then it is equiangular.



, then

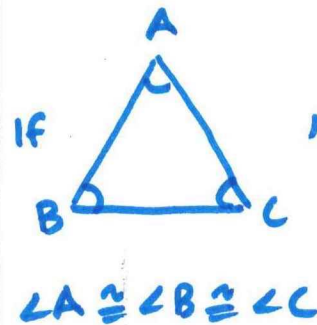


COR. BA Thm

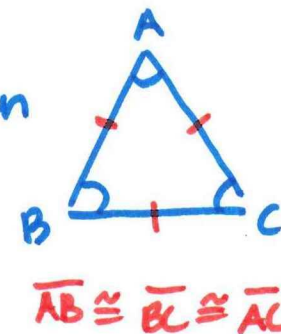
COROLLARY to the CONVERSE of BASE ANGLES THEOREM

Cor. CBA Thm.

If a triangle is equiangular, then it is equilateral.



, then



COR. CBA Thm