

FM Geometry Vocabulary/Properties/Postulates//Theorems for Chapter 4

Congruent Figures – Corresponding Parts of Congruent Figures are Congruent CPCTC

Included Side/Angle

Median

Altitude

Perpendicular Bisector

SSS Congruence Postulate

SAS Congruence Postulate

ASA Congruence Postulate

AAS Congruence Theorem

HL Congruence Theorem

Parts of an Isosceles Triangle – Base, Legs, Vertex, Base Angles

Base Angles Theorem: Two sides of a triangle are congruent **if and only if** the angles opposite those sides are congruent.

Thrm: An equilateral triangle is also equiangular.

Thrm: An equiangular triangle is also equilateral.

Thrm: An equilateral triangle has three  $60^\circ$  angles.

Thrm: The bisector of the vertex angle of an isosceles triangle is perpendicular to the base at its midpoint.

(The bisector of the vertex angle of an isosceles triangle is the  $\perp$  bisector of the base.)

Perpendicular Bisector Theorem:

A point lies on the perpendicular bisector of a segment **if and only if** the point is equidistant from the endpoints of the segment.

2<sup>nd</sup> Angle Bisector Theorem:

A point lies on the bisector of an angle **if and only if** the point is equidistant from the sides of the angle.