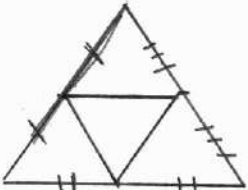


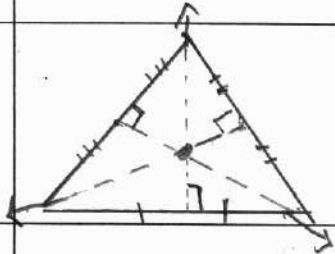
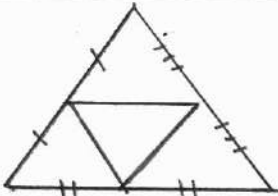
CHAPTER 5 – Relationships with Triangles
Geometry Honors

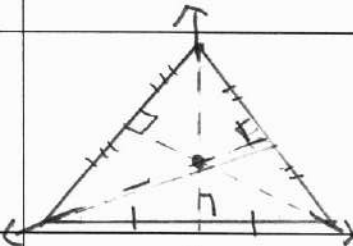
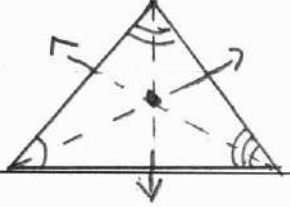
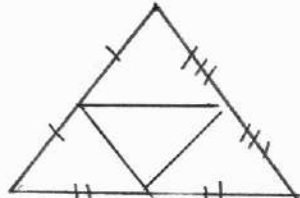
PAMA CINCO

Segment of the Triangle	Picture	Point of Concurrency	Where is the point of Concurrency located?	What is special? Theorem says...
MIDSEGMENT		NONE	NONE	Midsegment is parallel to and half the length of the third side

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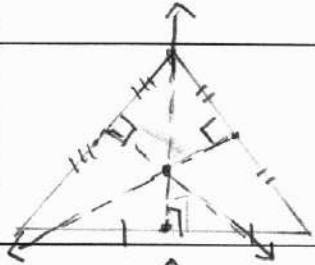
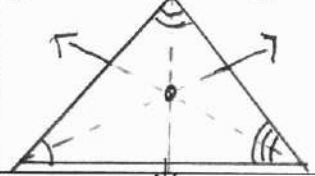

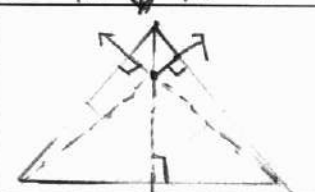
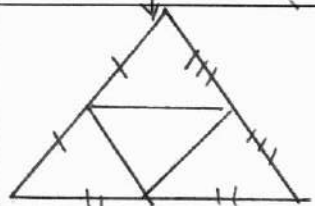
Segment of the Triangle	Picture	Point of Concurrency	Where is the point of Concurrency located?	What is special? Theorem says...
PERPENDICULAR BISECTOR		Circumcenter	Acute – Inside Right – Hypotenuse Obtuse - Outside	Circumcenter is equidistant from vertices
MIDSEGMENT		NONE	NONE	Midsegment is parallel to and half the length of the third side

Segment of the Triangle	Picture	Point of Concurrency	Where is the point of Concurrency located?	What is special? Theorem says...
PERPENDICULAR BISECTOR (1)		Circumcenter	Acute – Inside Right – Hypotenuse Obtuse - Outside	Circumcenter is equidistant from vertices
ANGLE BISECTOR (2)		Incenter	Always Inside	Incenter is equidistant from the sides
MIDSEGMENT		NONE	NONE	Midsegment is parallel to and half the length of the third side

(1) If segment comes from sides it is equidistant to the vertices. (2) If the segment comes from vertices it is equidistant to the sides.

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Segment of the Triangle	Picture	Point of Concurrency	Where is the point of Concurrency located?	What is special? Theorem says...
PERPENDICULAR BISECTOR (1)		Circumcenter	Acute – Inside Right – Hypotenuse Obtuse - Outside	Circumcenter is equidistant from vertices
ANGLE BISECTOR (2)		Incenter	Always Inside	Incenter is equidistant from the sides
MEDIAN		Centroid	Always Inside	Centroid is $\frac{2}{3}$ away from the vertex of entire median
ALTITUDE		Orthocenter	Acute – Inside Right – Vertex of Right Triangle Obtuse - Outside	The lines containing the altitudes are concurrent
MIDSEGMENT		NONE	NONE	Midsegment is parallel to and half the length of the third side

(1) If segment comes from sides it is equidistant to the vertices. (2) If the segment comes from vertices it is equidistant to the sides.