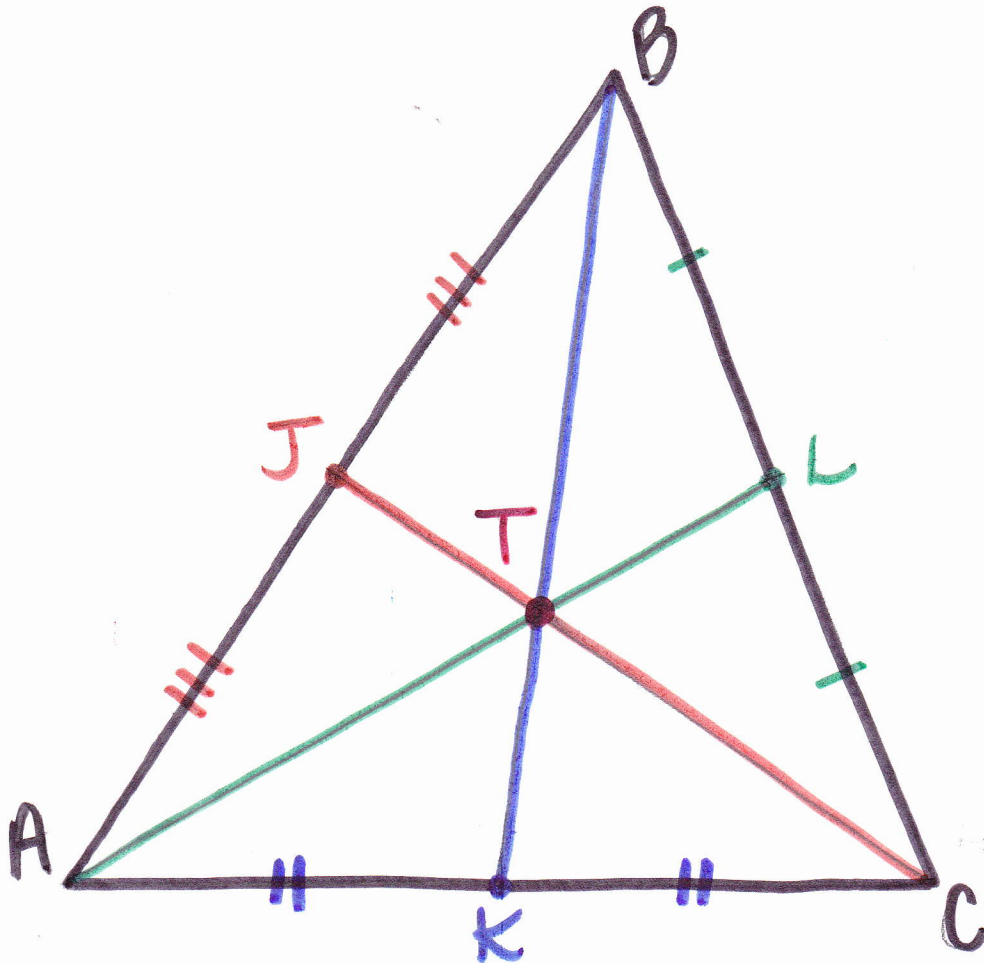


Notes 6.3 - Centroid & Orthocenter (Points of Concurrency)

Objective: I can recognize points of concurrency in a Δ .

Median - a segment whose endpoints are a vertex of a Δ and the midpoint of the opposite side

Website for help: www.youtube.com/watch?v=HRntXbgXKIc



J is the mdpt
of \overline{AB} , so
 $AJ = JB$.

L is the mdpt
of \overline{BC} , so
 $BL = LC$.

K is the mdpt
of \overline{AC} , so
 $AK = KC$.

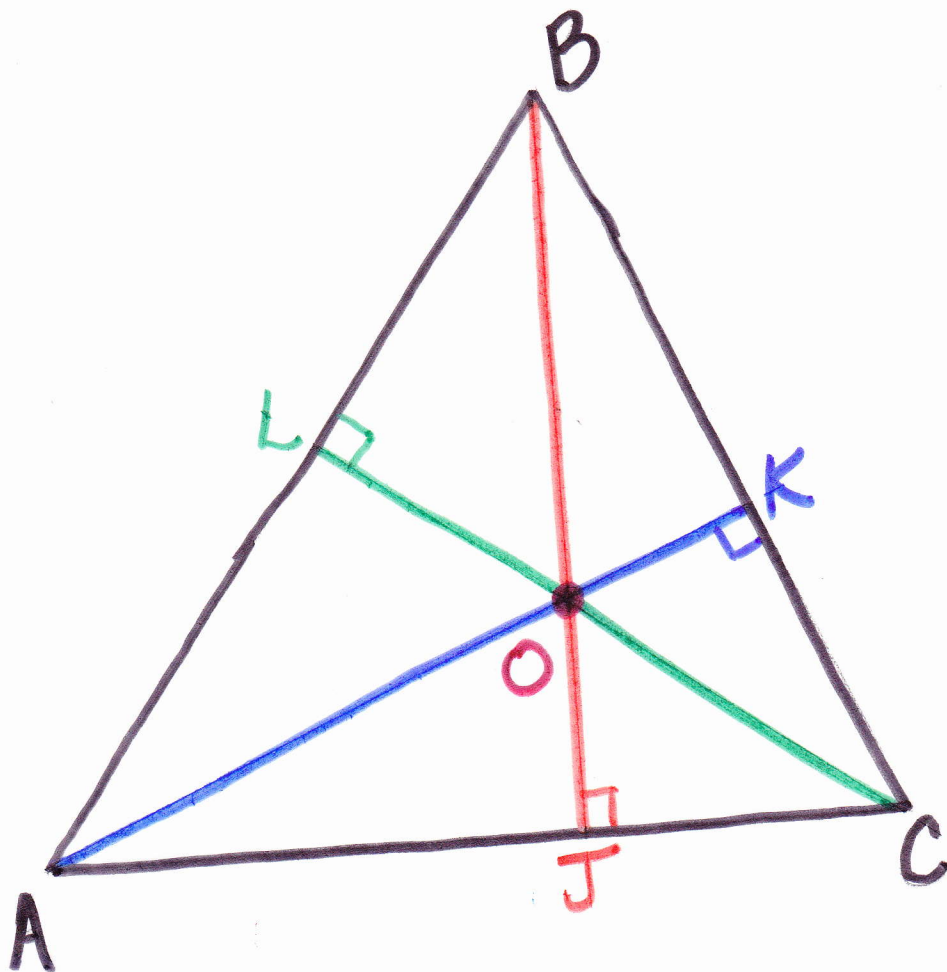
\overline{CJ} , \overline{BK} , and \overline{AL} are the medians of ΔABC .

Centroid - the point of intersection of the three
medians of a Δ

T is the centroid of ΔABC .

Altitude - a \perp segment from a vertex of a Δ to the line containing the opposite side

Website for help: www.youtube.com/watch?v=n3VOLGUx9tc



$\overline{BJ} \perp \overline{AC}$, so $\angle BJC$
& $\angle BJA$ are rt \angle s.

$\overline{AK} \perp \overline{BC}$, so $\angle AKB$
& $\angle AKC$ are rt \angle s.

$\overline{CL} \perp \overline{AB}$, so $\angle CLB$
& $\angle CLA$ are rt \angle s.

\overline{AK} , \overline{BJ} , and \overline{CL} are the altitudes of ΔABC .

* The altitude is also known as the height of the Δ .

Orthocenter - the point of intersection of the altitudes of a Δ
O is the orthocenter of ΔABC .

There are 2 more points of concurrency in a Δ .

- Incenter - the point of intersection of the \angle bisectors in a Δ
- Circumcenter - the point of intersection of the \perp bisectors in a Δ