

1.5

Wednesday, August 24, 2016 8:17 AM

Bisect - divide equally in 2

Given: D bisects \overline{AC}



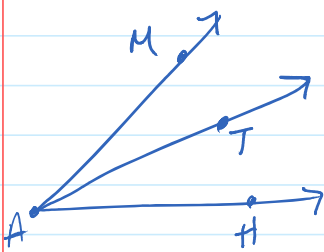
Conclusion: If a point bisects a segment, then it divides the segment into 2 \cong segments.

Given: $\overline{AD} \cong \overline{DC}$



Conclusion: If a point divides a segment into 2 \cong segments, then it bisects the segment.

Given: \overrightarrow{AT} bisects $\angle MAH$



Conclusion: If a ray bisects an angle, then it divides the angle into 2 \cong angles.

Given: $\angle MAT \cong \angle TAH$

Conclusion: If a ray divides an angle into 2 \cong angles, then it bisects the angle.

Trisect: divide equally into 3 parts

Given: B, C trisect \overline{AD}



Conclusion: If 2 points trisect a segment, then they divide the segment into 3 \cong segments

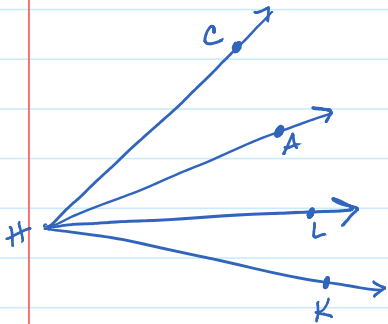
3 \cong segments

Given: $\overline{AB} \cong \overline{BC} \cong \overline{CD}$

Conclusion: If 2 points divide a segment into 3 \cong segs, then they trisect the seg.

Given: $\overrightarrow{HA}, \overrightarrow{HL}$ trisect \angleCHK

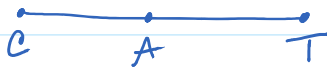
Conclusion: If 2 rays trisect an angle, then they divide the angle into 3 \cong angles.



Given: $\angle CHA \cong \angle AHL \cong \angle LHK$

Conclusion: If 2 rays divide an angle into 3 \cong angles, then they trisect the angle.

Midpoint



Given: A is a midpt of \overline{CT}

Conclusion: If a point is a midpt, then it divides the segment into 2 \cong segs.

Given: $\overline{AC} \cong \overline{AT}$

Conclusion: If a point divides a seg into 2 \cong segs, then it is a midpt.