

Triangle Bisector Theorems



Overview of problems



Example Set: A

Verify the theorem

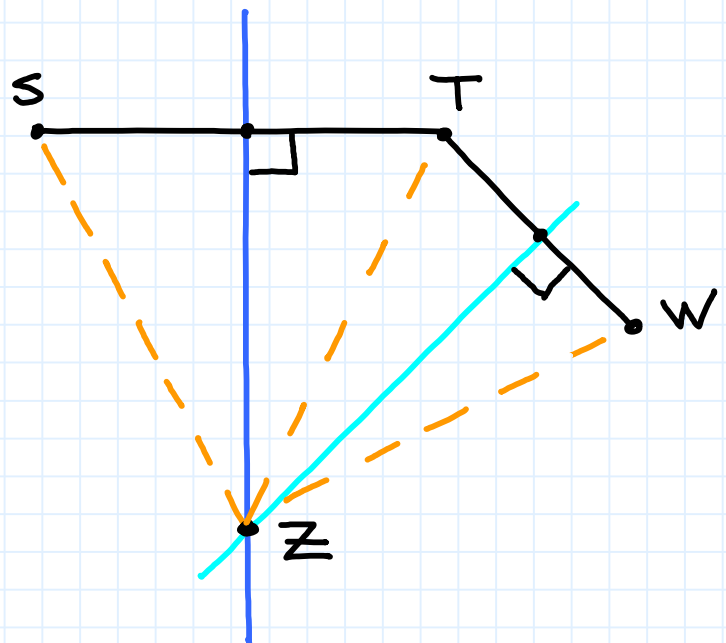
1. Draw a line segment.
2. Next draw the perpendicular bisector through the segment.
3. Plot a point on the perpendicular bisector.
4. Verify (by measuring) the theorem that if a point lies on the perpendicular bisector of a segment, then the point is equidistant from the endpoints of the segment.



Example Set: B

Given: Z is on the perpendicular bisector of both \overline{ST} and \overline{TW}

Prove: $SZ = WZ$



Triangle Bisector Theorems



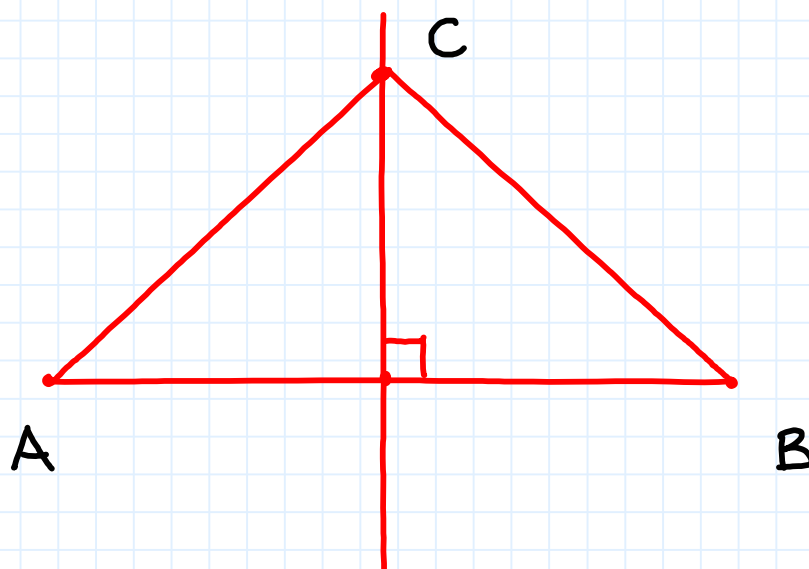
Overview of problems- KEY



Example Set: A

Verify the theorem

1. Draw a line segment.
2. Next draw the perpendicular bisector through the segment.
3. Plot a point on the perpendicular bisector.
4. Verify (by measuring) the theorem that if a point lies on the perpendicular bisector of a segment, then the point is equidistant from the endpoints of the segment.

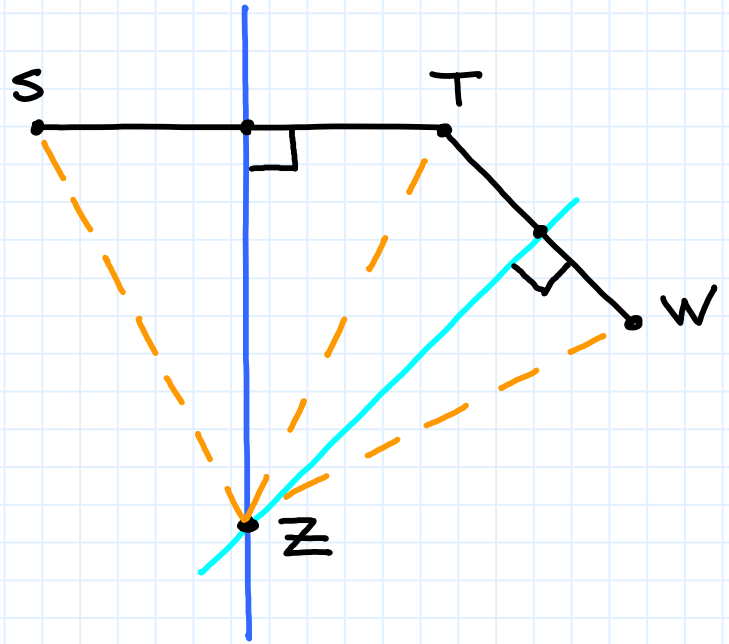




Example Set: B

Given: Z is on the perpendicular bisector of both \overline{ST} and \overline{TW}

Prove: $SZ = WZ$



Statement	Reason
Z is on the \perp bisec of \overline{ST} , \overline{TW}	Given
$SZ = ZT$ $ZT = WZ$	if a point is on the \perp bisector then it's equidistant from the end points
$SZ = WZ$	Trans. Prop.