

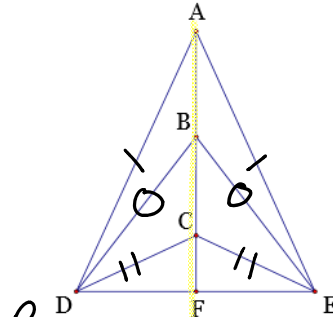
4.4 proofs

Thursday, October 20, 2016 8:43 AM

Geo H
4.4 Practice Proofs

1. Given: $\overline{AD} \cong \overline{AE}$
 $\overline{DC} \cong \overline{CE}$

Prove: $\overline{BD} \cong \overline{BE}$ w/out using congruent triangles

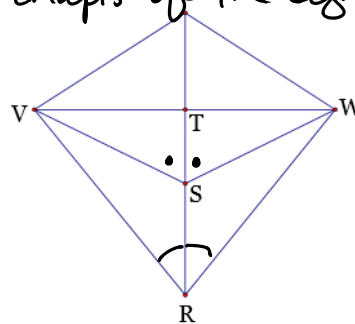


S
1. $\overline{AD} \cong \overline{AE}$ $\overline{DC} \cong \overline{CE}$
2. $\overleftrightarrow{AC} \perp \text{bis } \overline{DE}$
3. $\overline{BD} \cong \overline{BE}$

R
1. Given
2. If 2 pts are equidistant from the endpoints of a segment, then they form the \perp bis of the segment.
3. If a point lies on the \perp bis, then it is equidistant from the endpoints of the segment.

2. Given: \overline{TS} bis $\angle VSW$
 \overline{SR} bis $\angle VRW$

Prove: $\triangle UVW$ is Isosceles



S	R
1. \overline{TS} bis $\angle VSW$, \overline{SR} bis $\angle VRW$	1. Given
2. $\angle VRS \cong \angle WRS$, $\angle VST \cong \angle WST$	2. Def of bisect
3. $\overline{SR} \cong \overline{SR}$	3. Reflexive
4. $\angle TSR$ is a st. \angle	4. Assumed from the diagrams
5. $\angle VST$ supp $\angle VSR$, $\angle WST$ supp $\angle WSR$	5. If 2 angles form a st. \angle , then they are supp
6. $\angle VSR \cong \angle WSR$	6. If 2 angles are $\cong \rightarrow$ Supps \cong

7. $\triangle VSR \cong \triangle WSR$	7. ASA
8. $\overline{VS} \cong \overline{WS}$, $\overline{VR} \cong \overline{WR}$	8. CPCTC
9. $\overleftrightarrow{RS} \perp \text{bis } \overline{VW}$	9. If 2 pts are equidistant from the endpoints of a seg, then they form the \perp bis of the seg.
10. $\overline{VU} \cong \overline{WU}$	10. If a point lies on the \perp bis, then it is equidistant from the endpoints of the seg.

the \perp bis, then α is
equidistant from the
endpts of the seg.

II. ΔUVW is isos

II. If $\Delta \rightarrow$ isos