

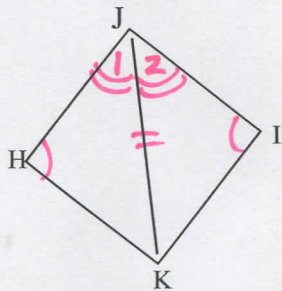
5.7 Proving Congruent Triangle PROOFS CYU DAY TWO

Use when you get it right all by yourself
S Use when you did it all by yourself, but made a silly mistake
H Use when you could do it alone with a little help from teacher or peer
G Use when you completed the problem in a group
X Use when a question was attempted but wrong (get help)
N Use when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Reflexive POC	1 - 3		
Def of Angle Bisector		1, 2	
SAS, SSS, AAS, HL, ASA	1 - 5		
Alternate Interior Angles		4 - 5	
CPCTC	1 - 5		

Be sure to number and label all your statements and reasons. BE sure to mark stuff AFTER your write it in your proof!

1. Given: $\angle H \cong \angle I$; \overline{JK} bisects $\angle HJI$
 Prove: $\angle JKH \cong \angle JKI$

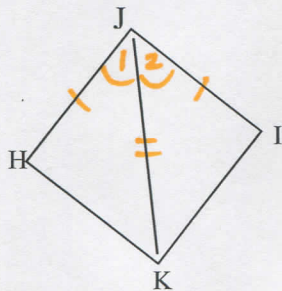


statements | reasons

1. $\angle H \cong \angle I$; \overline{JK} bisects $\angle HJI$
2. $\angle 1 \cong \angle 2$
3. $\overline{JK} \cong \overline{JK}$
4. $\triangle JKH \cong \triangle JKI$
5. $\angle JKH \cong \angle JKI$

1. Given
2. Def of \angle Bisector
3. Reflexive POC
4. AAS \cong Thm
5. CPCTC

2. Given: $\overline{JH} \cong \overline{JI}$; \overline{JK} bisects $\angle HJI$
 Prove: $HK \cong IK$

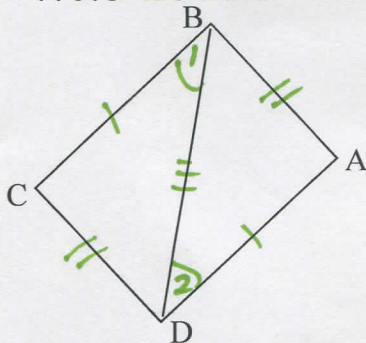


statements | reasons

1. $\overline{JH} \cong \overline{JI}$; \overline{JK} bisects $\angle HJI$
2. $\angle 1 \cong \angle 2$
3. $\overline{JK} \cong \overline{JK}$
4. $\triangle HJK \cong \triangle IJK$
5. $\overline{HK} \cong \overline{IK}$

1. Given
2. Def of \angle bisector
3. Reflexive POC
4. SAS \cong Thm
5. CPCTC

3. Given: $\overline{BC} \cong \overline{AD}$; $\overline{BA} \cong \overline{CD}$
 Prove: $\angle C \cong \angle A$

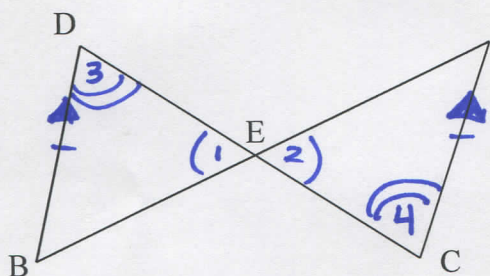


statements | reasons

1. $\overline{BC} \cong \overline{AD}$; $\overline{BA} \cong \overline{CD}$
2. $\overline{BD} \cong \overline{BD}$
3. $\triangle BCD \cong \triangle DAB$
4. $\angle C \cong \angle A$

1. Given
2. Reflexive POC
3. SSS \cong Thm
4. CPCTC

4. Given: $\overline{BD} \cong \overline{AC}$; $\overline{BD} \parallel \overline{AC}$
 Prove: $\angle D \cong \angle C$

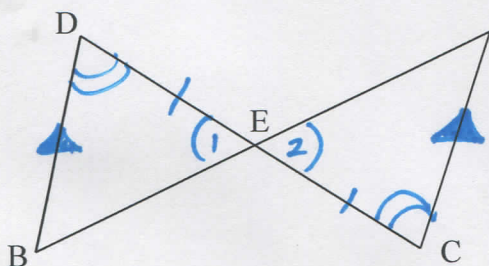


- statements
1. $\overline{BD} \cong \overline{AC}$; $\overline{BD} \parallel \overline{AC}$
 2. $\angle 1 \cong \angle 2$
 3. $\angle 3 \cong \angle 4$
 4. $\triangle BDE \cong \triangle ACE$
 5. $\angle D \cong \angle C$

- reasons
1. Given
 2. Def of vertical \angle 's
 3. AIA Thm
 4. AAS \cong Thm
 5. CPCTC

* could be done shorter $\frac{1}{2}$ different ways *

5. Given: $\overline{ED} \cong \overline{EC}$; $\overline{BD} \parallel \overline{AC}$
 Prove: $\overline{EB} \cong \overline{EA}$



- statements
1. $\overline{ED} \cong \overline{EC}$; $\overline{BD} \parallel \overline{AC}$
 2. $\angle 1 \cong \angle 2$
 3. $\angle D \cong \angle C$
 4. $\triangle BDE \cong \triangle ACE$
 5. $\overline{EB} \cong \overline{EA}$

- reasons
1. Given
 2. Def. of vertical \angle 's
 3. AIA Thm
 4. ASA Thm
 5. CPCTC

CYU Reflection: How far can you go: basic, intermediate, or advanced?

Rate your mastery level!

How confident are you with the skills this CYU covered? Circle the score you would give yourself.

