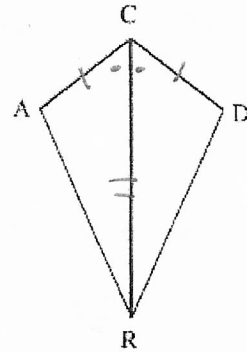


EXAMPLE #3:

Prove the following using a formal proof

Given: $\overline{AC} \cong \overline{DC}$
 \overline{RC} bisects $\angle ACD$

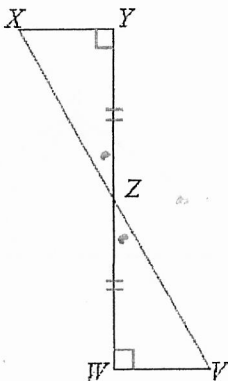
Prove: $\angle CAR \cong \angle CDR$



STATEMENTS	REASONS
1. $\overline{AC} \cong \overline{DC}$	1. Given
2. \overline{RC} bisects $\angle ACD$	2. Given
3. $\triangle ACR \cong \triangle DCR$	3. Definition of \angle bisector
4. $\overline{CR} \cong \overline{CR}$	4. Reflexive
5. $\triangle CAR \cong \triangle DCR$	5. SAS
6. $\angle CAR \cong \angle CDR$	6. CPDCTAC

EXAMPLE #4:

GIVEN:

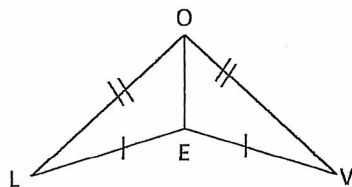


PROVE: $\overline{XY} \cong \overline{VW}$

STATEMENTS	REASONS
1. $\angle Y \cong \angle W$	1. Given
2. $\overline{YZ} \cong \overline{WZ}$	2. Given
3. $\angle YZX \cong \angle WZV$	3. Vert. opp \angle 's
4. $\triangle YZX \cong \triangle WZV$	4. ASA
5. $\overline{XY} \cong \overline{VW}$	5. CPDCTAC

EXAMPLE #1:

GIVEN:



PROVE: $\triangle LOE \cong \triangle VOE$

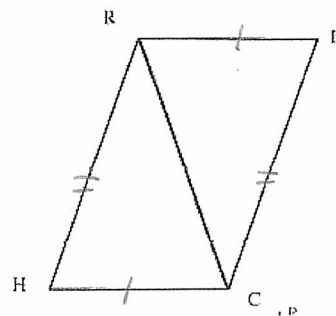
STATEMENTS	REASONS
1. $\overline{LO} = \overline{VO}$	1. Given
2. $\overline{LE} = \overline{VE}$	2. Given
3. $\overline{OE} = \overline{OE}$	3. Reflexive
4. $\triangle LOE \cong \triangle VOE$	4. SSS

EXAMPLE #2: Prove the following in a formal, two column proof.

Given: $\overline{RD} \cong \overline{HC}$

$\overline{HR} \cong \overline{DC}$

Prove: $\angle D \cong \angle H$

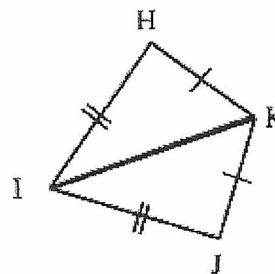


STATEMENTS	REASONS
1. $\overline{RD} \cong \overline{HC}$	1. Given
2. $\overline{HR} \cong \overline{DC}$	2. Given
3. $\overline{RC} = \overline{RC}$	3. Reflexive
4. $\triangle RHC \cong \triangle CDR$	4. SSS
5. $\angle D \cong \angle H$	5. CPDCTAC ↳ Corresponding Parts of Congruent Triangles are Congruent

G1 PROOF: Assignment #2

1. Given: $\overline{HK} \cong \overline{KJ}$
 $\overline{HI} \cong \overline{IJ}$

Prove: $\triangle HIK \cong \triangle JIK$

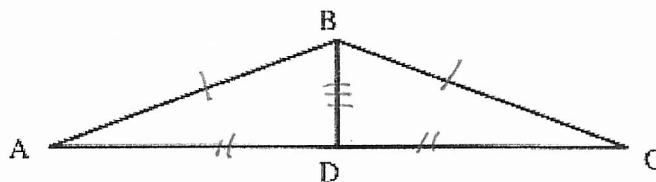


STATEMENTS	REASONS
1. $\overline{HK} \cong \overline{KJ}$	1. Given
2. $\overline{HI} \cong \overline{IJ}$	2. Given
3. $\overline{IK} \cong \overline{IK}$	3. Reflexive
4. $\triangle HIK \cong \triangle JIK$	4. SSS

2. Given: D is the midpoint of \overline{AC}

$$\overline{AB} \cong \overline{BC}$$

Prove: $\angle A \cong \angle C$

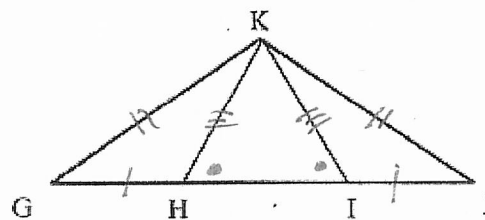


STATEMENTS	REASONS
1. D is the midpoint of \overline{AC}	1. Given
2. $\overline{AB} \cong \overline{BC}$	2. Given
3. $\overline{AD} \cong \overline{DC}$	3. Defn. of Midpoint
4. $\overline{BD} \cong \overline{BD}$	4. Reflexive
5. $\triangle ABD \cong \triangle CBD$	5. SSS
6. $\angle A \cong \angle C$	6. CPCTAC

3. Given: $\angle KHI \cong \angle KIH$

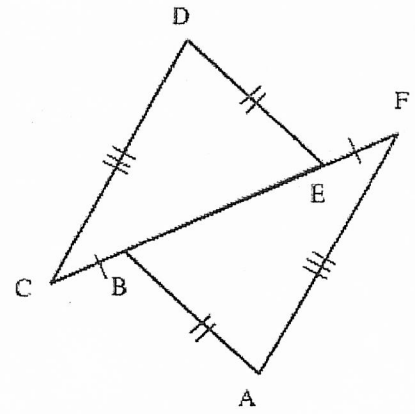
$$\overline{GH} \cong \overline{IJ}, \overline{GK} \cong \overline{JK}$$

Prove: $\triangle GKH \cong \triangle JKI$



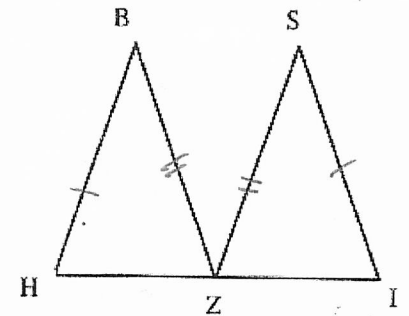
STATEMENTS	REASONS
1. $\angle KHI \cong \angle KIH$	1. Given
2. $\overline{GH} \cong \overline{IJ}$	2. Given
3. $\overline{GK} \cong \overline{JK}$	3. Given
4. $\overline{KH} \cong \overline{KI}$	4. If two sides of a \triangle are \cong , the \angle s opp them are \cong
5. $\triangle GKH \cong \triangle JKI$	5. SSS

4. Given: $\overline{CD} \cong \overline{AF}$
 $\overline{DE} \cong \overline{BA}, \overline{CB} \cong \overline{EF}$
 Prove: $\angle D \cong \angle A$



STATEMENTS	REASONS
1. $\overline{CD} \cong \overline{AF}$	1. Given
2. $\overline{DE} \cong \overline{BA}$	2. Given
3. $\overline{CB} \cong \overline{EF}$	3. Given
4. $\overline{BE} \cong \overline{BE}$	4. Reflexive
5. $CB + BE = CE$	5. Segment Addition Post.
6. $FE + BE = FB$	6. Segment Addition Postulate
7. $\overline{CE} \cong \overline{BF}$	7. Addition Property of Equality
8. $\triangle CDE \cong \triangle FAB$	8. SSS
9. $\angle D \cong \angle A$	9. Corresponding parts of congruent triangles are congruent.

5. Given: $\overline{HB} \cong \overline{SI}$
 $\overline{BZ} \cong \overline{SZ}$
 Z is the midpoint of \overline{HI} .
 Prove: $\angle H \cong \angle I$

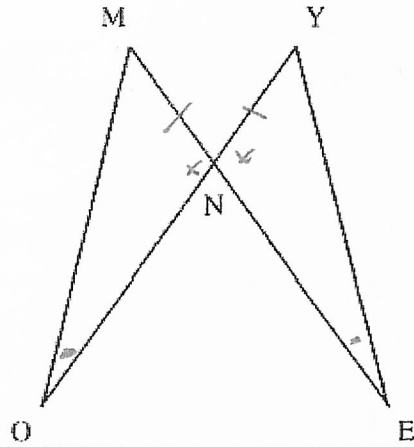


STATEMENTS	REASONS
1. $\overline{HB} \cong \overline{SI}$	1. Given
2. $\overline{BZ} \cong \overline{SZ}$	2. Given
3. Z is the midpoint of \overline{HI}	3. Given
4. $\overline{HZ} \cong \overline{ZI}$	4. Defn of Midpoint
5. $\triangle HBZ \cong \triangle SZI$	5. SSS
6. $\angle H \cong \angle I$	6. CPCTAC

6.

Given: $\angle MON \cong \angle YEN$
 $\overline{MN} \cong \overline{YN}$

Prove: $\overline{MO} \cong \overline{YE}$

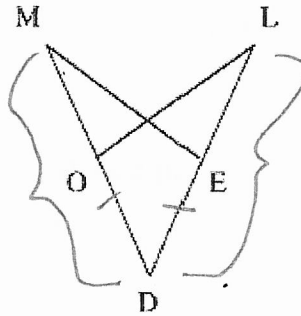


STATEMENTS	REASONS
1. $\angle MON \cong \angle YEN$	1. Given
2. $\overline{MN} \cong \overline{YN}$	2. Given
3. $\angle MNO \cong \angle YNE$	3. Vert opp \angle 's
4. $\triangle MNO \cong \triangle YNE$	4. A.A.S.
5. $\overline{MO} \cong \overline{YE}$	5. CPDCTAC.

7.

Given: $\overline{DM} \cong \overline{DL}$
 $\overline{DO} \cong \overline{DE}$

Prove: $\overline{ME} \cong \overline{LO}$



STATEMENTS	REASONS
1. $\overline{DM} \cong \overline{DL}$	1. Given
2. $\overline{DO} \cong \overline{DE}$	2. Given
3. $\angle O \cong \angle D$	3. Reflexive
4. $\triangle DMO \cong \triangle DLE$	4. SAS
5. $\overline{ME} \cong \overline{LO}$	5. CPDCTAC