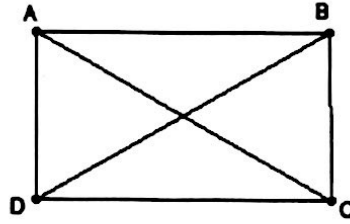
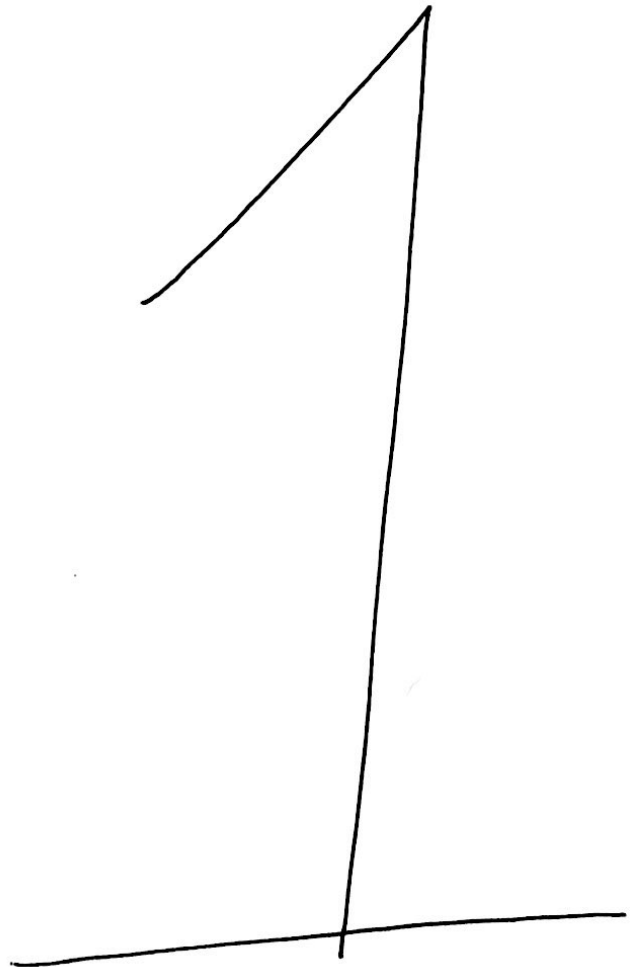
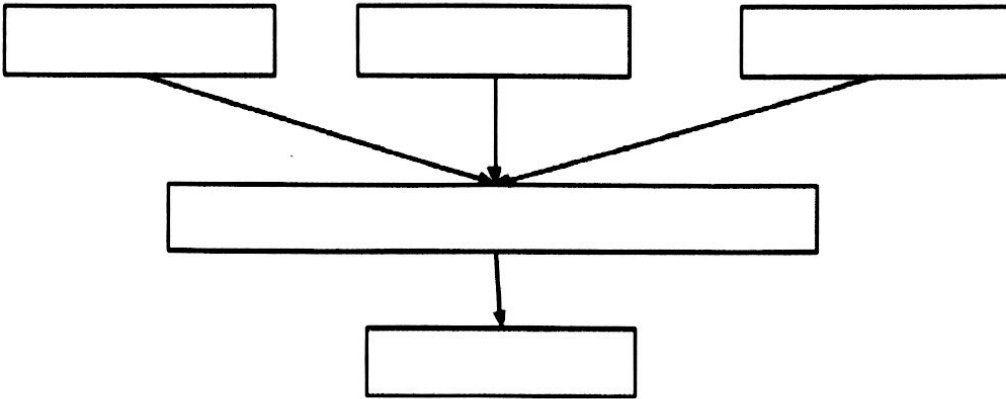


1. Given: $\overline{AD} \cong \overline{BC}$
 $\angle ADC \cong \angle BCD$



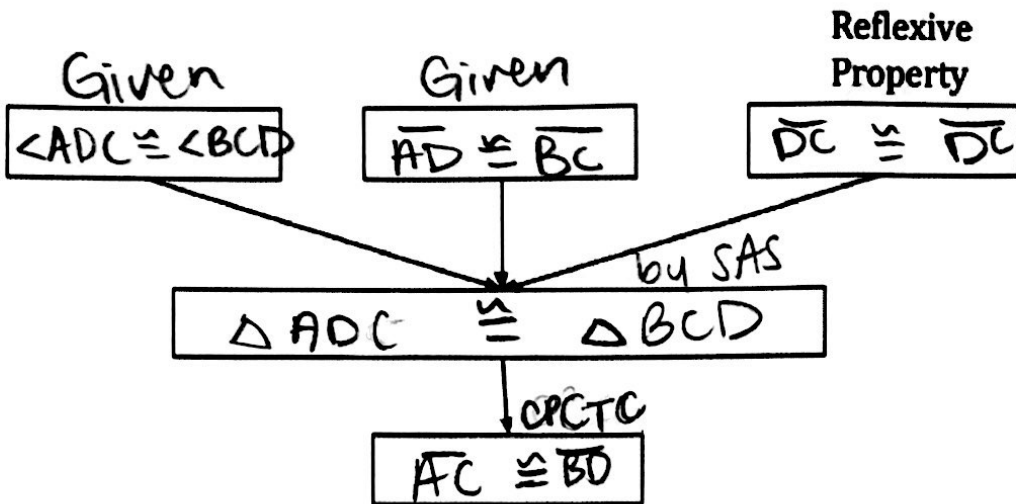
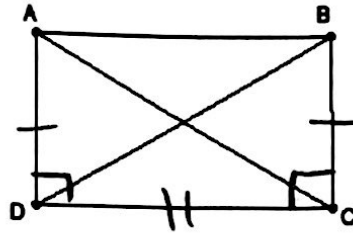
Prove: $\overline{AC} \cong \overline{BD}$

Reflexive
Property



1. Given: $\overline{AD} \cong \overline{BC}$
 $\angle ADC \cong \angle BCD$

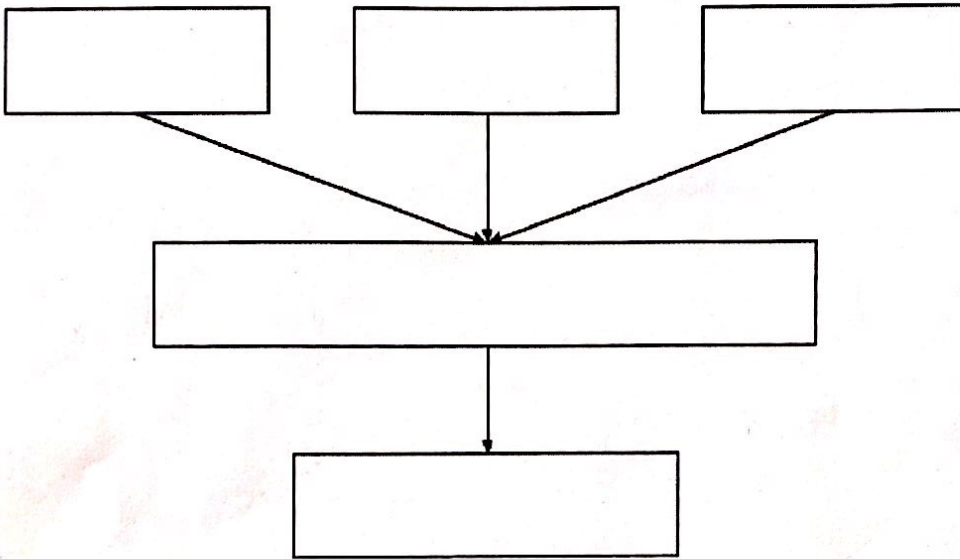
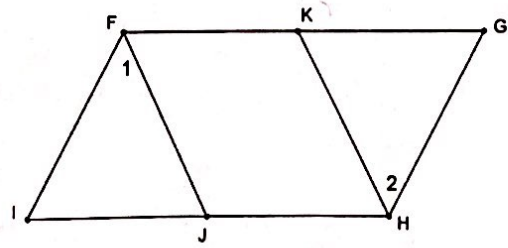
Prove: $\overline{AC} \cong \overline{BD}$



2. Given: $\angle I \cong \angle G$
 $\angle 1 \cong \angle 2$

$$\overline{JI} \cong \overline{KH}$$

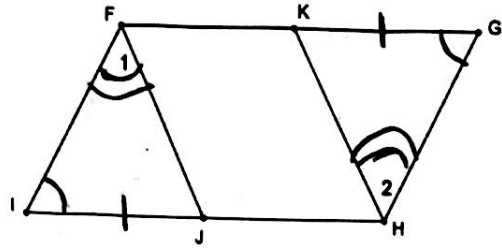
Prove: $\overline{FI} \cong \overline{HG}$



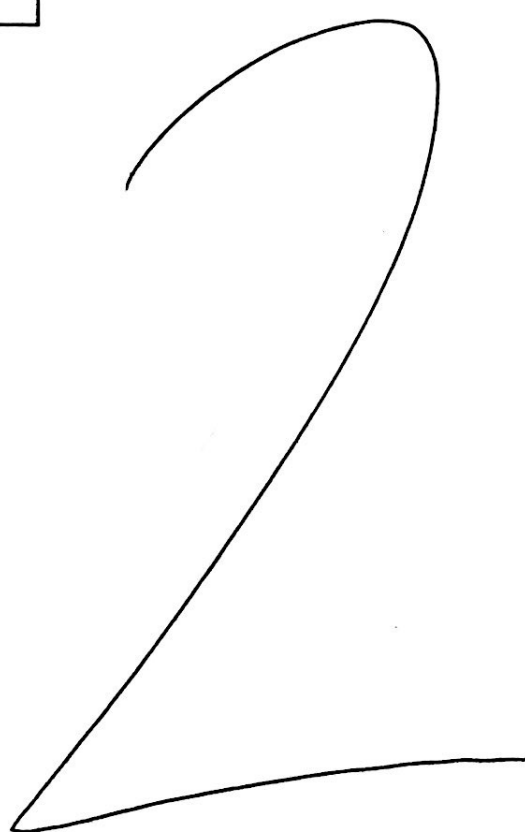
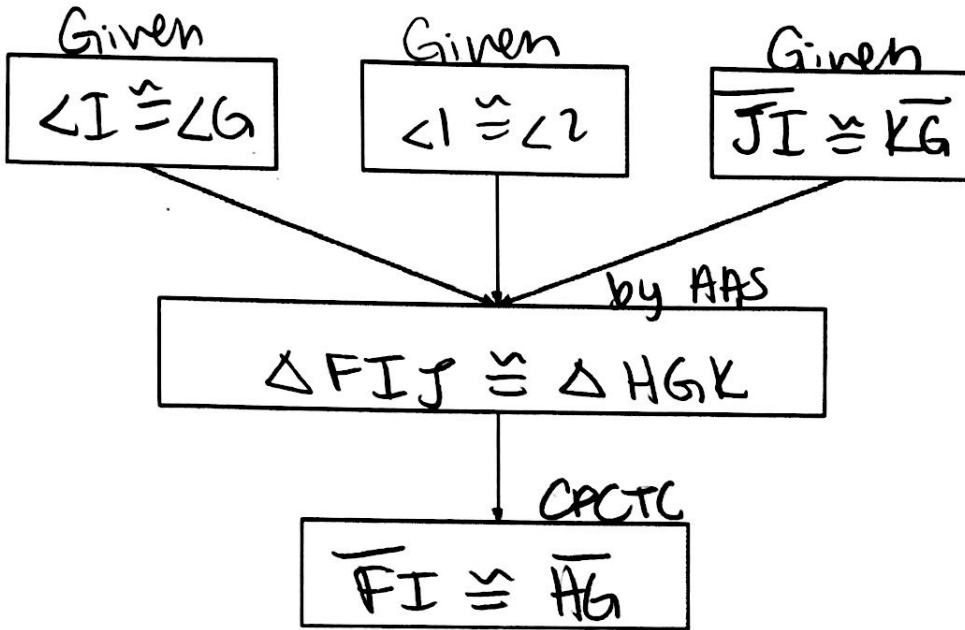
2

2. Given: $\angle I \cong \angle G$
 $\angle 1 \cong \angle 2$

$\overline{JI} \cong \overline{KG}$



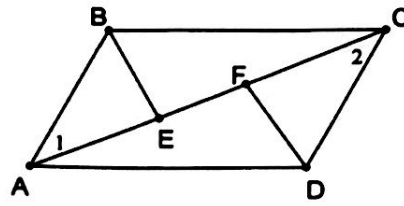
Prove: $\overline{FI} \cong \overline{HG}$



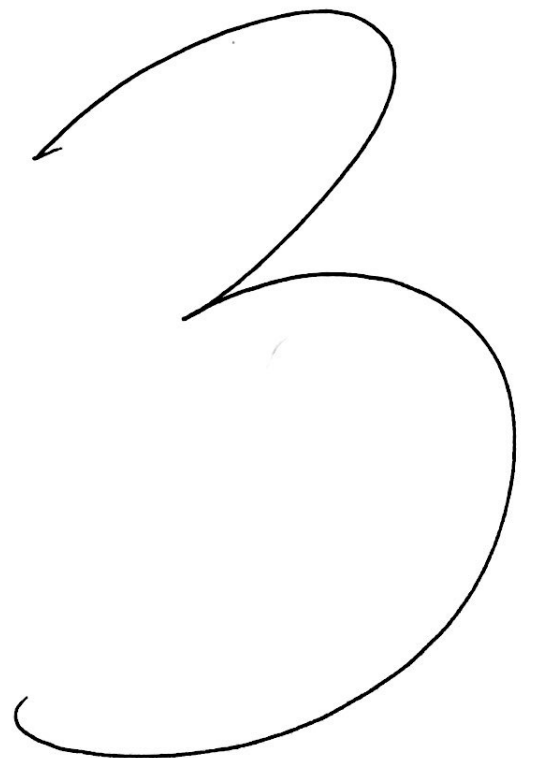
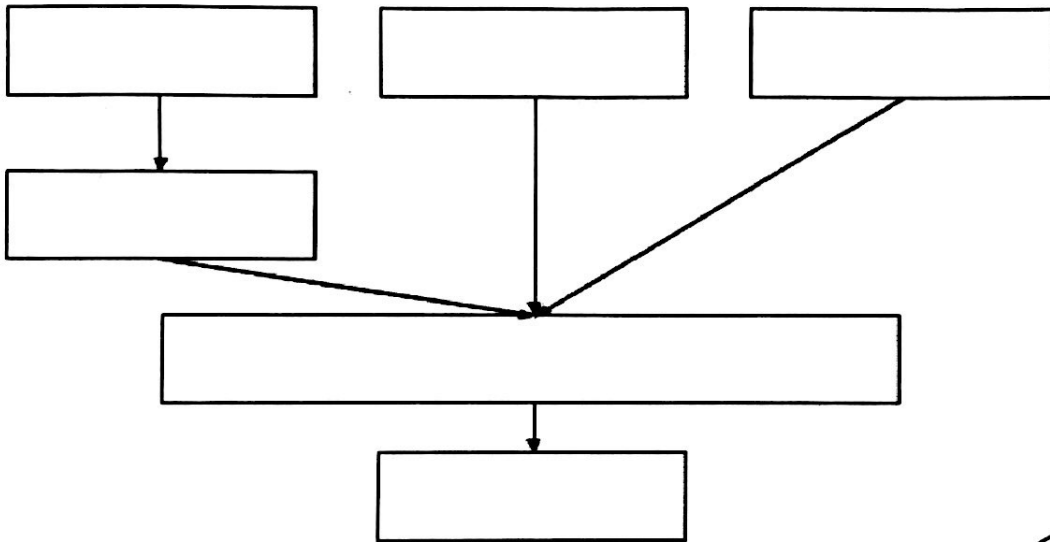
3. Given: $\overline{AB} \parallel \overline{CD}$

$\overline{AB} \cong \overline{CD}$

$\angle AEB \cong \angle DFC$



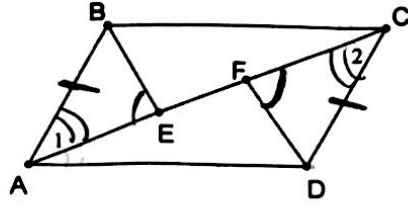
Prove: $\overline{BE} \cong \overline{DF}$



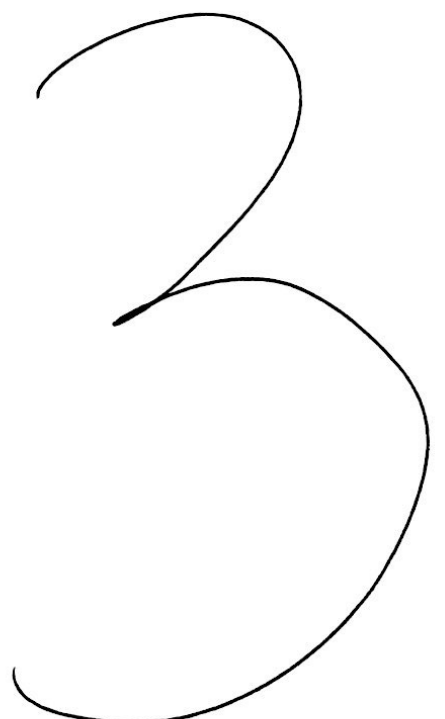
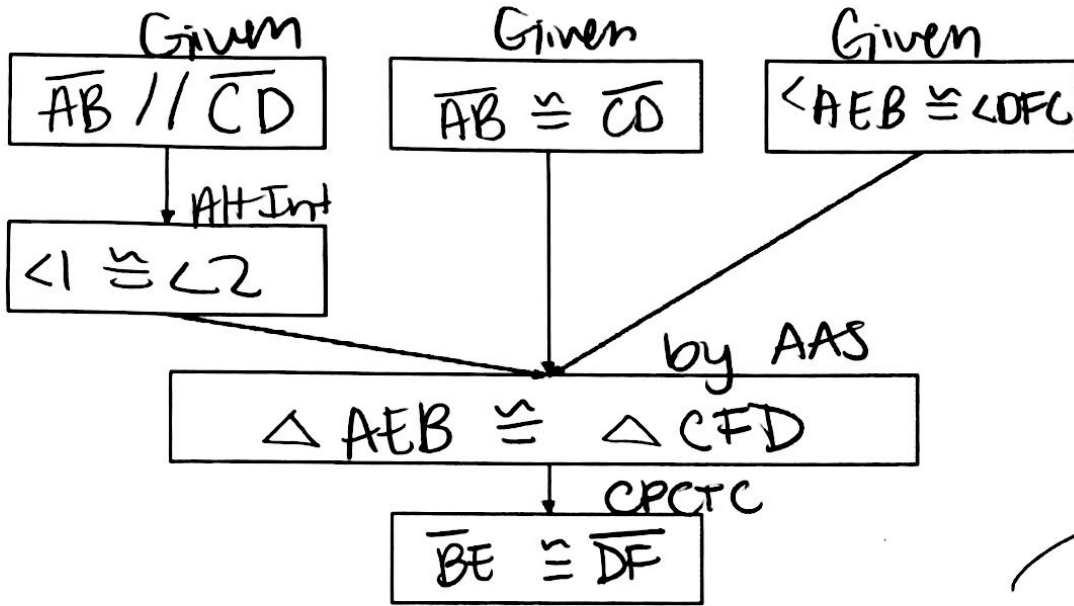
3. Given: $\overline{AB} \parallel \overline{CD}$

$\overline{AB} \cong \overline{CD}$

$\angle AEB \cong \angle DFC$



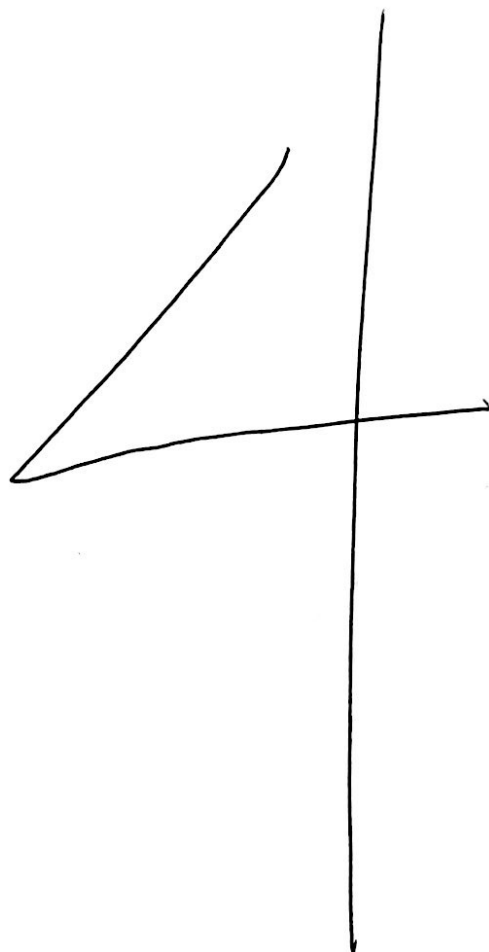
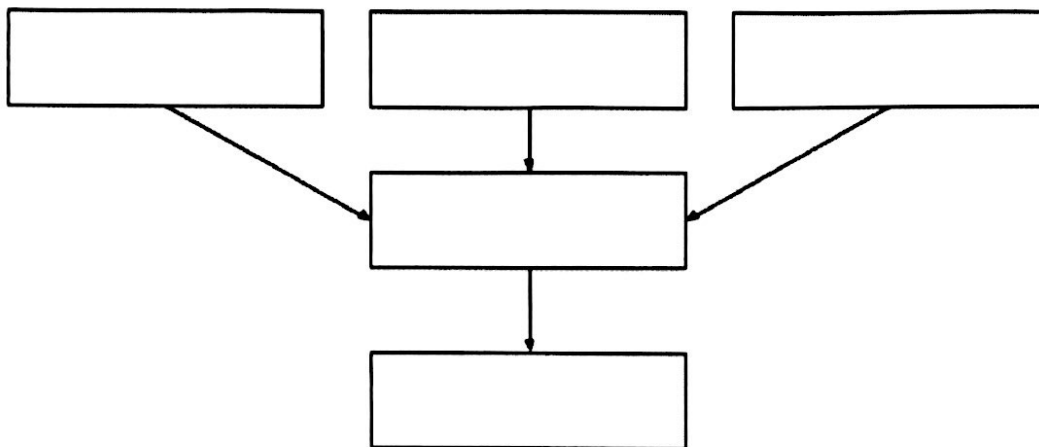
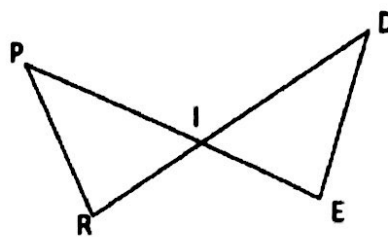
Prove: $\overline{BE} \cong \overline{DF}$



4.) Given: $\overline{PI} \cong \overline{DI}$

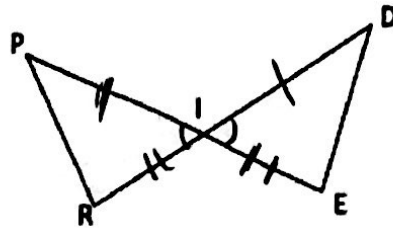
$\overline{RI} \cong \overline{EI}$

Prove: $\angle R \cong \angle E$

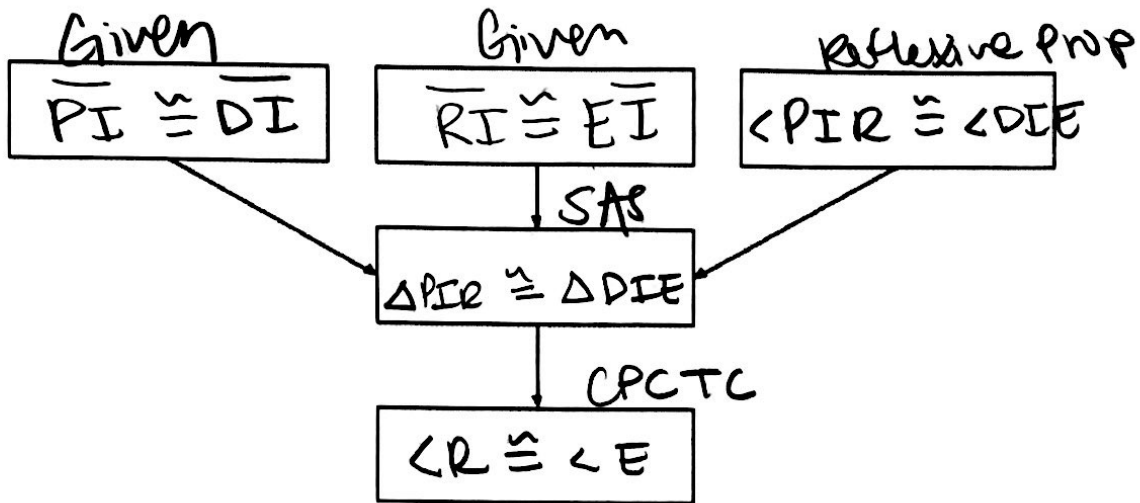


4.) Given: $\overline{PI} \cong \overline{DI}$

$\overline{RI} \cong \overline{EI}$



Prove: $\angle R \cong \angle E$

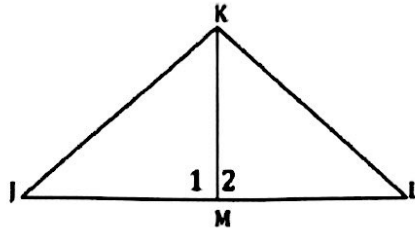


4

5) Given: $\overline{KM} \perp \overline{JL}$

M is the midpoint of \overline{JL}

Prove: $\triangle JKM \cong \triangle LKM$



[]

[]

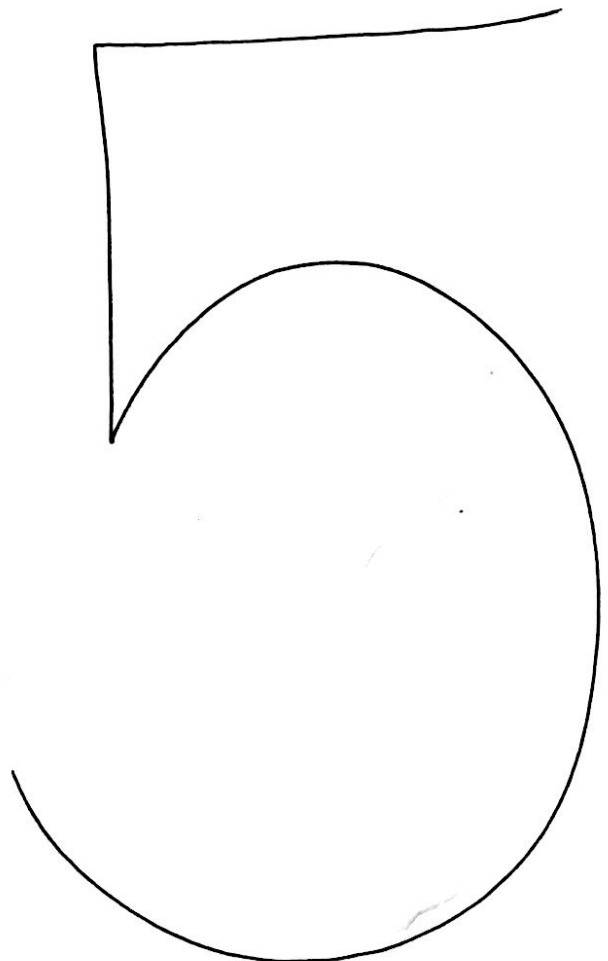
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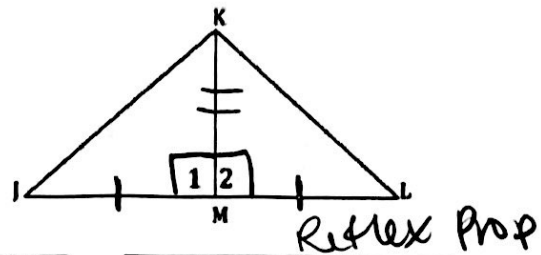
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5) Given: $\overline{KM} \perp \overline{JL}$

M is the midpoint of \overline{JL}

Prove: $\triangle JKM \cong \triangle LKM$



Given

$$\overline{KM} \perp \overline{JL}$$

def of \perp

$\angle 1$ & $\angle 2$ are
right angles

def of $\cong \angle$

$$\angle 1 \cong \angle 2$$

Given

M is the midpt
of \overline{JL}

$$\overline{JM} \cong \overline{ML}$$

by
SAS

$$\triangle JKM \cong \triangle LKM$$

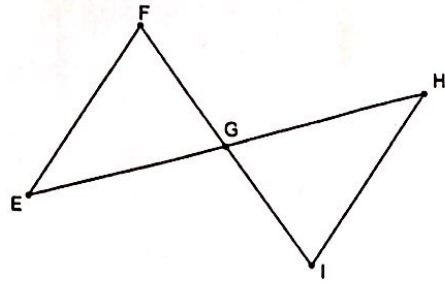
Reflex Prop

$$\overline{KM} \cong \overline{KM}$$

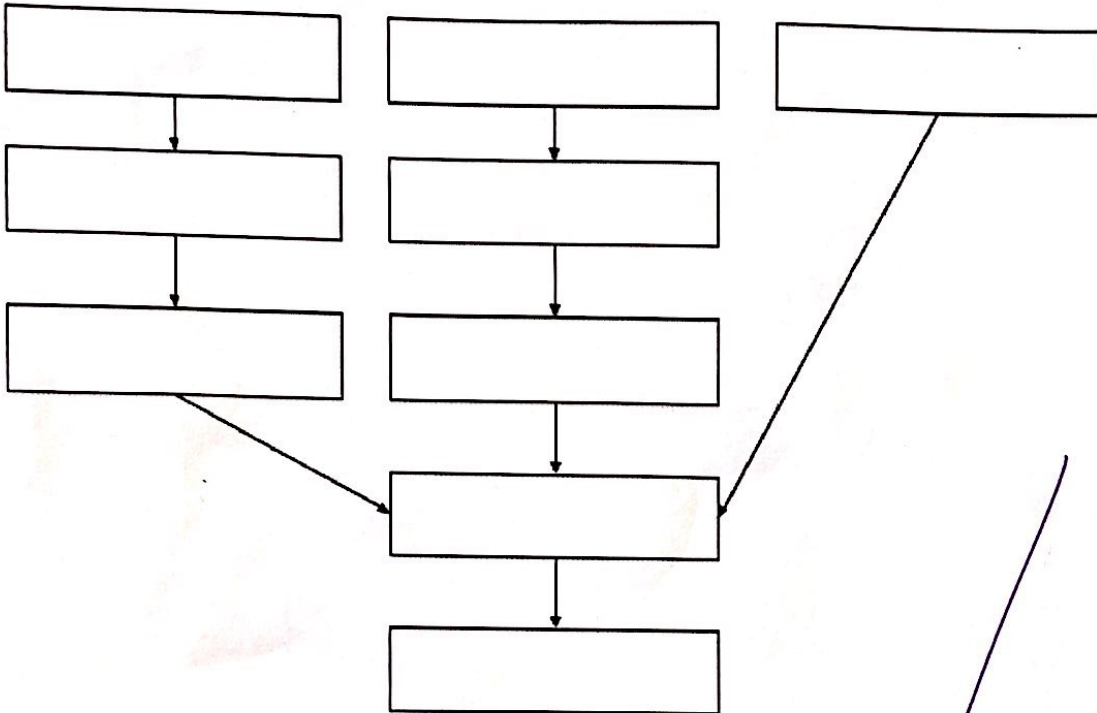
5

6. Given: \overline{FI} bisects \overline{EH}

\overline{EH} bisects \overline{FI}

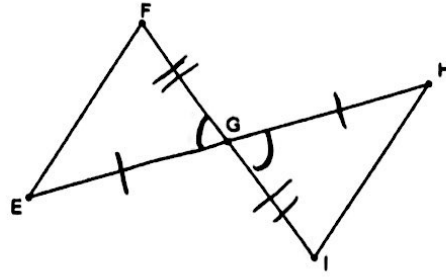


Prove: $\triangle E \cong \triangle H$

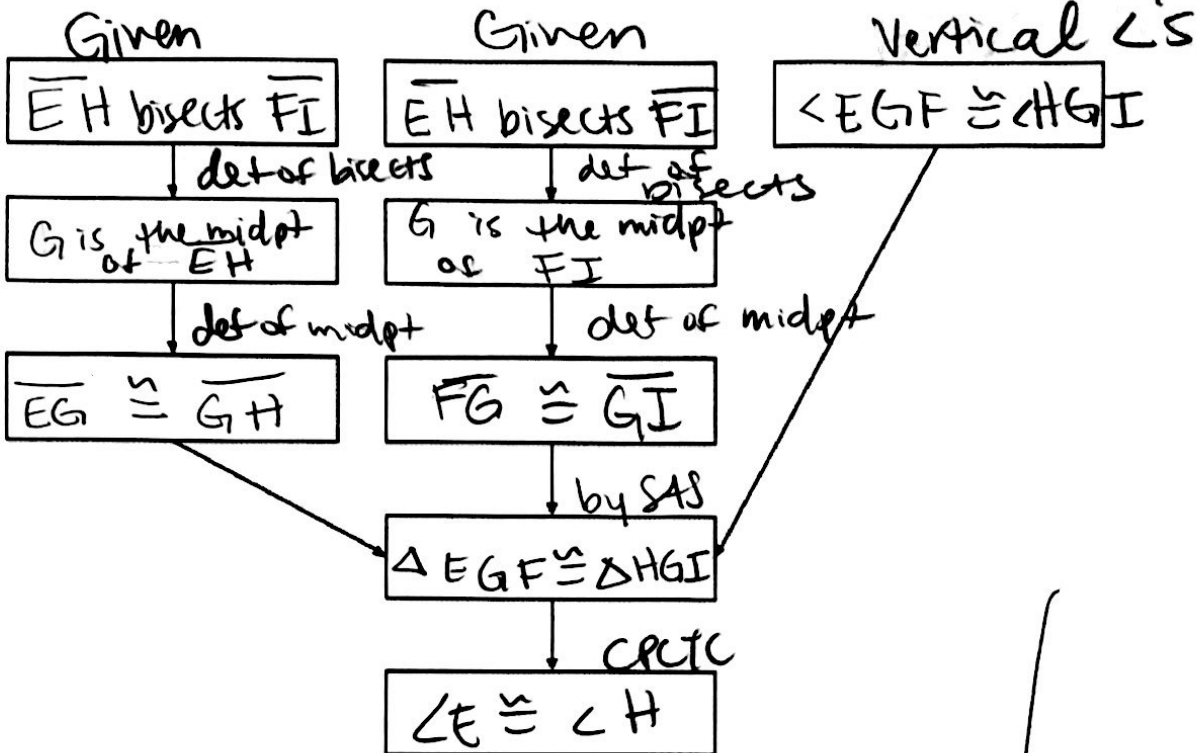


6. Given: \overline{FI} bisects \overline{EH}

\overline{EH} bisects \overline{FI}



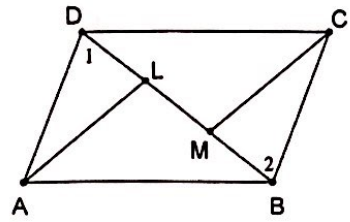
Prove: $\angle E \cong \angle H$



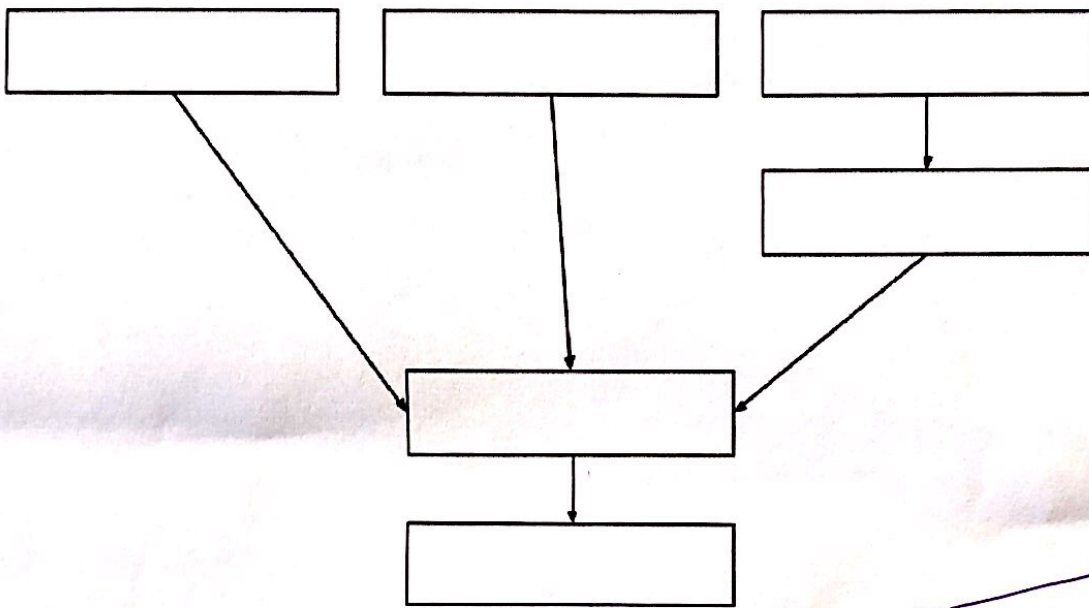
7. Given: $\angle DAL \cong \angle BCM$

$$\overline{DL} \cong \overline{MB}$$

$\angle ALD$ and $\angle CMB$ are right angles



Prove: $\overline{AL} \cong \overline{CM}$

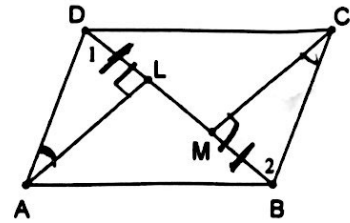


7

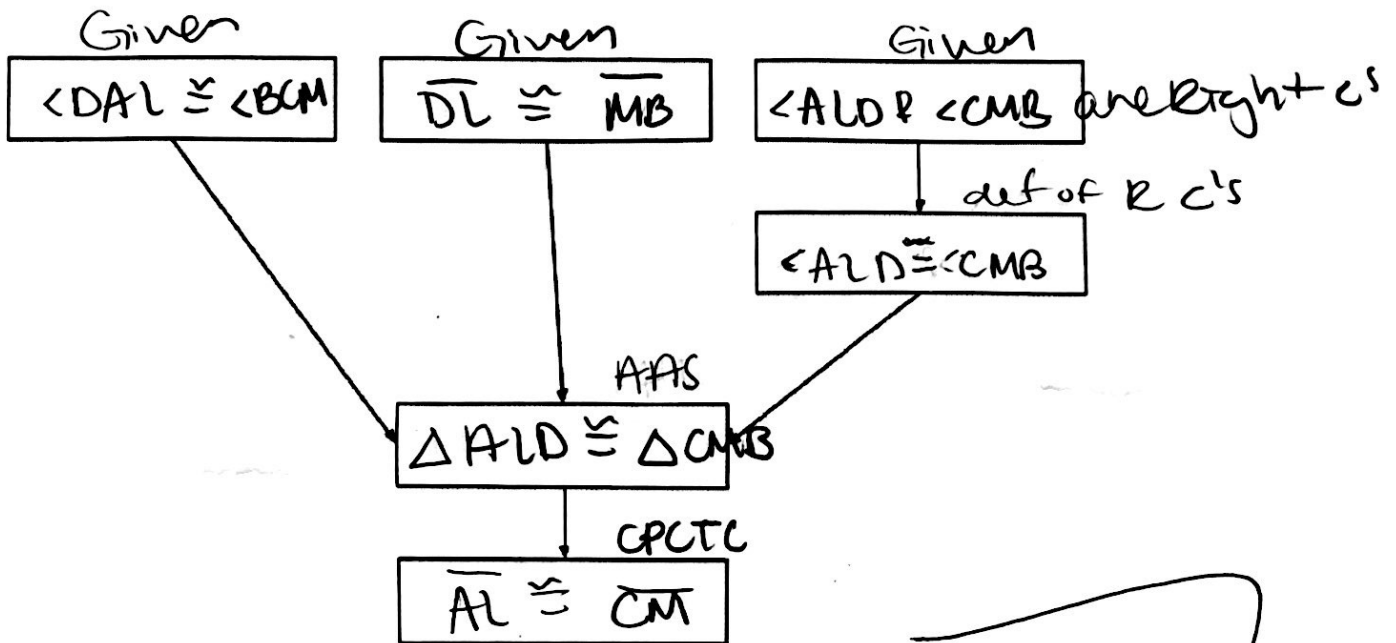
7. Given: $\angle DAL \cong \angle BCM$

$\overline{DL} \cong \overline{MB}$

$\angle ALD$ and $\angle CMB$ are right angles



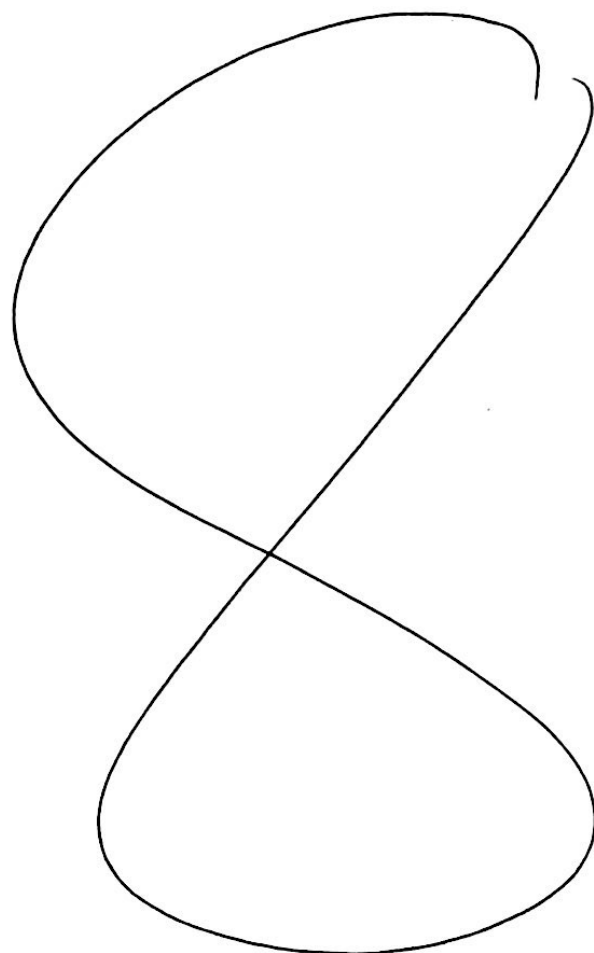
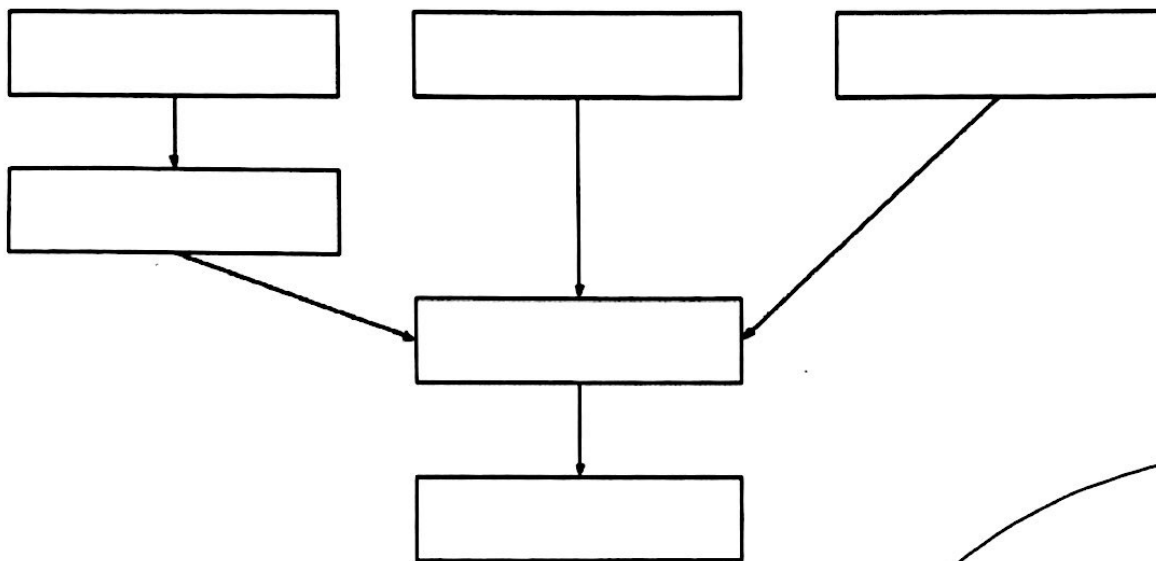
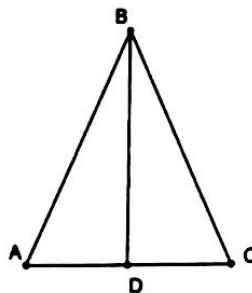
Prove: $\overline{AL} \cong \overline{CM}$



8. Given: \overline{BD} bisects $\angle ABC$

$\angle A \cong \angle C$

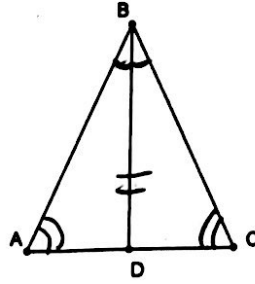
Prove: $\overline{AB} \cong \overline{BC}$



8. Given: \overline{BD} bisects $\angle ABC$

$$\angle A \cong \angle C$$

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



Given
 \overline{BD} bisects $\angle ABC$

def of bisects

$$\angle ABD \cong \angle CBD$$

Given

$$\angle A \cong \angle C$$

by AAS

$$\triangle ABD \cong \triangle CBD$$

CPTC

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

Reflexive Prop

$$\overline{BD} \cong \overline{BD}$$

