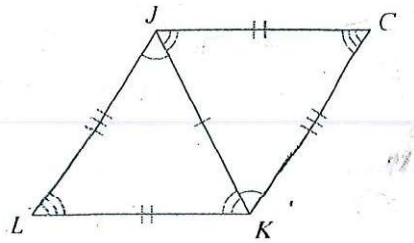
GSE Geometry Name_____

Quiz Practice Corresponding Parts

Date_____ Block___

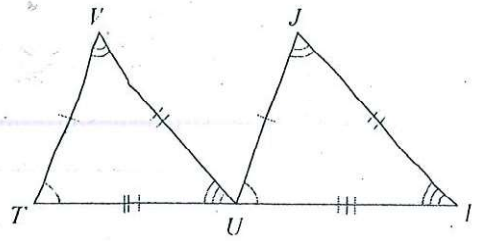
Complete each congruence statement by naming the corresponding angle or side.

1) $\triangle JKL \cong \triangle KJC$



$\angle L \cong ?$ ∠C

2) $\triangle TVU \cong \triangle UJI$



$\overline{TV} \cong ?$ $\overline{UJ}$

3) $\triangle QRP \cong \triangle JHI$

$\overline{RP} \cong ?$ $\overline{HI}$

4) $\triangle XYZ \cong \triangle YXI$

$\angle ZXY \cong ?$ ∠IYX

5) $\triangle CDB \cong \triangle CIJ$

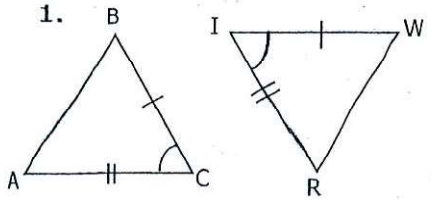
$\angle D \cong ?$ ∠I

6) $\triangle VUW \cong \triangle VHI$

$\overline{UW} \cong ?$ $\overline{HI}$

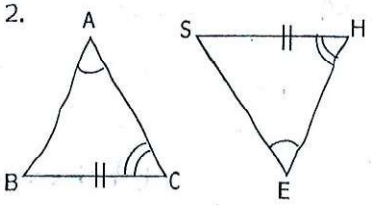
For each problem give the correct naming order of the congruent triangles. Write that name in order on the lines for the problem number (see box at bottom). Also, indicate which postulate or theorem is being used.

1.



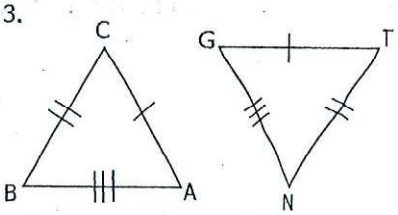
ΔABC ≅ Δ RIW by SAS

2.



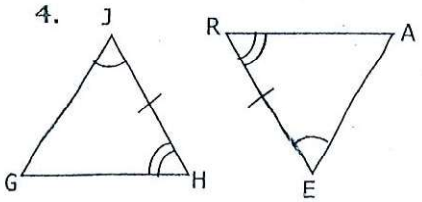
ΔABC≅Δ ESH by AAS

3.



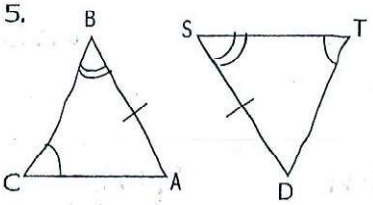
ΔABC ≅ Δ GNT by SSS

4.



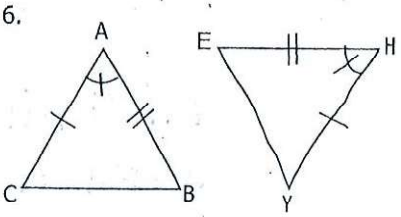
ΔGHJ ≅ Δ ARE by ASA

5.



ΔABC≅Δ DST by AAS

6.



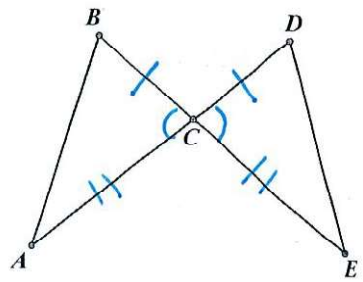
ΔABC ≅ Δ HEY by SAS

Geometry, Unit 5 – Congruent Triangles Proof Activity – Part I Name _____

For each problem, do the following:

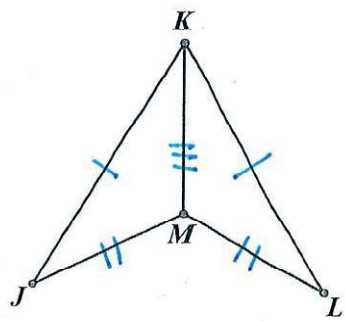
a. Show the given information in the diagram (using tick marks to show congruent sides and arcs to show congruent angles)
b. Show any other congruent parts you notice (from vertical angles, sides shared in common, or alternate interior angles with parallel lines)
c. Give the postulate or theorem that proves the triangles congruent (SSS, SAS, ASA, AAS, HL)
d. Finally, fill in the blanks to complete the proof.

1. Given: $\overline{BC} \cong \overline{DC}$; $\overline{AC} \cong \overline{EC}$
Prove: $\Delta BCA \cong \Delta DCE$ (triangles)
NO CPCTC



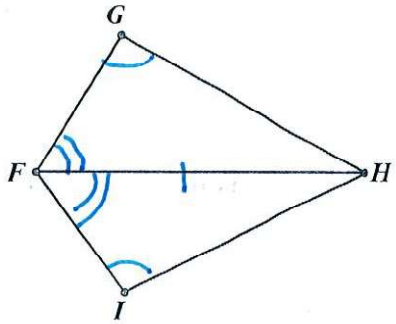
Statements	Reasons
1. $\overline{BC} \cong \overline{DC}$; $\overline{AC} \cong \overline{EC}$	1. Given
2. $\angle BCA \cong \angle DCE$	2. Vertical $\angle$s Theorem
3. $\Delta BCA \cong \Delta DCE$	3. SAS

2. Given: $\overline{JK} \cong \overline{LK}$; $\overline{JM} \cong \overline{LM}$
Prove: $\Delta KJM \cong \Delta KLM$ (triangles)



Statements	Reasons
1. $\overline{JK} \cong \overline{LK}$; $\overline{JM} \cong \overline{LM}$	1.
2. $\overline{KM} \cong \overline{KM}$	2. Reflexive Prop.
3. $\Delta KJM \cong \Delta KLM$	3. SSS

3. Given: $\angle G \cong \angle I$; $\overline{FH}$ bisects $\angle$GFI
Prove: $\Delta GFH \cong \Delta IFH$ (triangles)

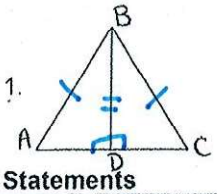


Statements	Reasons
1. $\angle G \cong \angle I$; $\overline{FH}$ bisects $\angle$GFI	1. Given
2. $\angle GFH \cong \angle IFH$	2. Def. of bisector
3. $\overline{FH} \cong \overline{FH}$	3. Reflexive Prop.
4. $\Delta GFH \cong \Delta IFH$	4. AAS

Chapter 6 Proof Practice #3 (CPCTC)

Name_____

1.

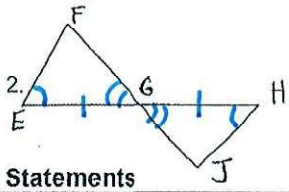


Given: $\angle BDA$ & $\angle BDC$ are right $\angle$'s
$\overline{AB} \cong \overline{BC}$

Prove: $\angle ABD \cong \angle CBD$ (parts)

Statements	Reasons
$\angle BDA$ & $\angle BDC$ are rt. $\angle$s	Given
$\overline{AB} \cong \overline{BC}$	Given
$\angle BDA \cong \angle BDC$	All rt. $\angle$s are $\cong$
$\overline{BD} \cong \overline{BD}$	Reflexive Prop.
$\triangle ABD \cong \triangle CBD$	HL
$\angle ABD \cong \angle CBD$	CPCTC

2.

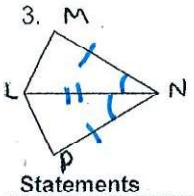


Given: G is the midpoint of $\overline{EH}$
$\angle E \cong \angle H$

Prove: $\overline{FG} \cong \overline{JG}$ (parts)

Statements	Reasons
G is the midpoint of $\overline{EH}$	Given
$\angle E \cong \angle H$	Given
$\overline{EG} \cong \overline{GH}$	Def. of midpoint
$\angle FGE \cong \angle JGH$	vert. $\angle$s are $\cong$
$\triangle FGE \cong \triangle JGH$	ASA
$\overline{FG} \cong \overline{JG}$	CPCTC

3.

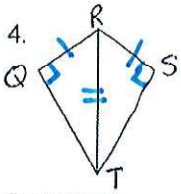


Given: $\overline{MN} \cong \overline{PN}$
$\overline{LN}$ bisects $\angle MNP$

Prove: $\angle MLN \cong \angle PLN$ (parts)

Statements	Reasons
$\overline{MN} \cong \overline{PN}$	Given
$\overline{LN}$ bisects $\angle MNP$	Given
$\angle MNL \cong \angle PNL$	Def. of bisector
$\overline{LN} \cong \overline{LN}$	Reflexive Prop.
$\triangle MNL \cong \triangle PNL$	SAS
$\angle MLN \cong \angle PLN$	CPCTC

4.

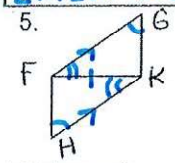


Given: $\angle Q$ & $\angle S$ are right $\angle$'s
$\overline{QR} \cong \overline{SR}$

Prove: $\angle QRT \cong \angle SRT$ (parts)

Statements	Reasons
$\angle Q$ & $\angle S$ are rt. $\angle$s	Given
$\overline{QR} \cong \overline{SR}$	Given
$\angle Q \cong \angle S$	All rt. $\angle$s are $\cong$
$\overline{RT} \cong \overline{RT}$	Reflexive Prop.
$\triangle RQT \cong \triangle RST$	HL
$\angle QRT \cong \angle SRT$	CPCTC

5.

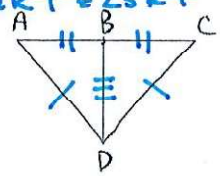


Given: $\overline{FG} \parallel \overline{HK}$,
$\angle G \cong \angle H$

Prove: $\overline{FH} \cong \overline{KG}$ (parts)

Statements	Reasons
$\overline{FG} \parallel \overline{HK}$	Given
$\angle G \cong \angle H$	Given
$\angle HKF \cong \angle GFK$	Alt. int. $\angle$s are $\cong$
$\overline{FK} \cong \overline{FK}$	Reflexive Prop.
$\triangle HKF \cong \triangle GFK$	AAS
$\overline{FH} \cong \overline{KG}$	CPCTC

6.

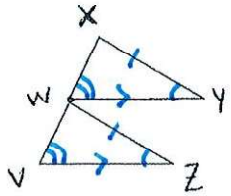


Given: $\overline{AD} \cong \overline{CD}$
$\overline{BD}$ bisects $\overline{AC}$

Prove: $\angle ADB \cong \angle CDB$ (parts)

Statements	Reasons
$\overline{AD} \cong \overline{CD}$	Given
$\overline{BD}$ bisects $\overline{AC}$	Given
$\overline{AB} \cong \overline{BC}$	Def. of bisector
$\overline{BD} \cong \overline{BD}$	Reflexive Prop.
$\triangle ADB \cong \triangle CDB$	SSS
$\angle ADB \cong \angle CDB$	CPCTC

7.



Given: $\overline{WY} \parallel \overline{VZ}$
$\angle Y \cong \angle Z$
$\overline{XY} \cong \overline{WZ}$

Prove: $\overline{VW} \cong \overline{XW}$ (parts)

Statements	Reasons
$\overline{WY} \parallel \overline{VZ}$	Given
$\angle Y \cong \angle Z$	Given
$\overline{XY} \cong \overline{WZ}$	Given
$\angle V \cong \angle W$	corresponding angles are $\cong$
$\triangle XWY \cong \triangle WVZ$	AAS
$\overline{VW} \cong \overline{XW}$	CPCTC