

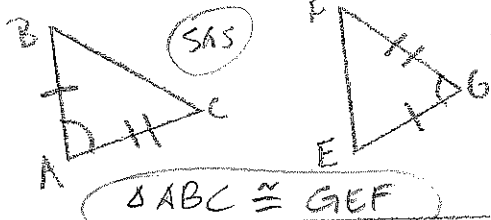
L3 Geometry Midyear Review
Chapter 4

Name KW
Date _____

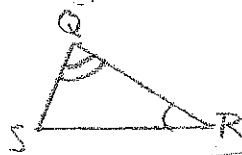
① List the 5 theorems or postulates that you can use to prove that two triangles are congruent.

SSS ASA
SAS AAS HL

② Write the ~~similarity~~ ^{congruence} statement for the two triangles.



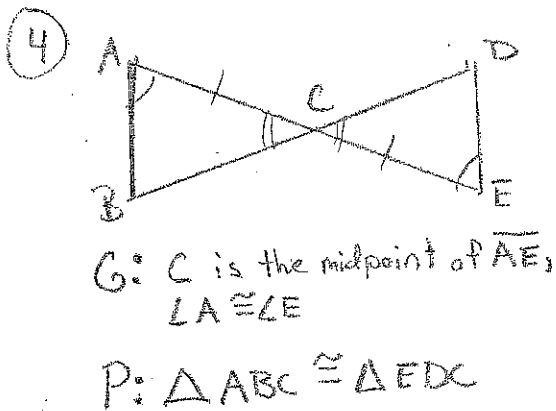
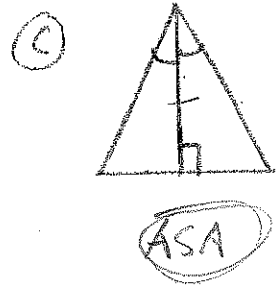
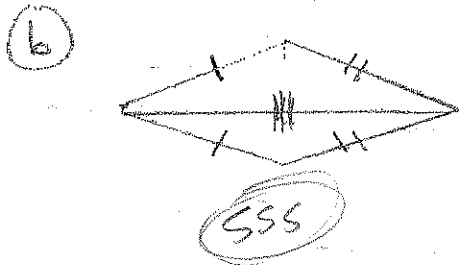
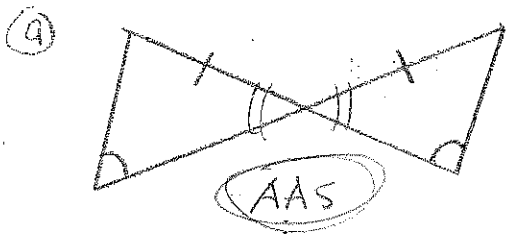
$\triangle ABC \cong \triangle GEF$



SHOULD THESE HAVE A 3RD MARKING?

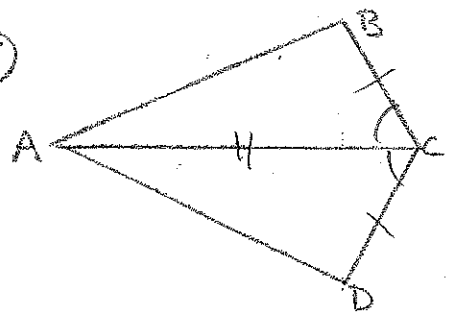
CAN'T DETERMINE CONGRUENCE

③ Which theorem or postulate would you use to prove that the two triangles are congruent.



Statement	Reason
C is the midpoint of \overline{AE}	Given
$\overline{AC} \cong \overline{EC}$	Def. of MIDPOINT
$\angle A \cong \angle E$	GIVEN
$\angle ACB \cong \angle ECD$	VERTICAL \angle 'S \cong
$\triangle ABC \cong \triangle EDC$	ASA

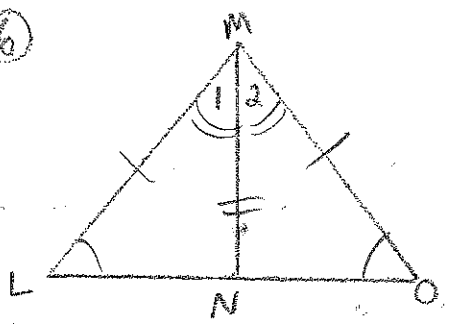
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G: \overline{AC} bisects $\angle BCD$;
 $\overline{BC} \cong \overline{DC}$
 P: $\triangle ABC \cong \triangle ADC$

Statement	Reason
\overline{AC} bisects $\angle BCD$	Given
$\angle ACB \cong \angle ACD$	Def. of angle bisector
$\overline{BC} \cong \overline{DC}$	Given
$\overline{AC} \cong \overline{AC}$	Reflexive property of \cong
$\triangle ABC \cong \triangle ADC$	SAS

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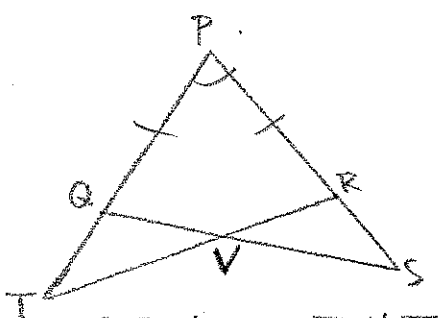


G: $\triangle LMO$ is isosceles with \overline{LO} as the base;
 $\angle L \cong \angle O$
 P: $\triangle LMN \cong \triangle OMN$

Statement	Reason
$\triangle LMO$ is isosceles...	GIVEN
$\overline{LM} \cong \overline{OM}$	LEGS OF ISOSCELES \triangle ARE \cong
(YOU COULD ALSO SAY $\angle L \cong \angle O$)	(BASE \angle 'S OF ISOS. \triangle ARE \cong)
$\angle L \cong \angle O$	Given
$\overline{MN} \cong \overline{MN}$	Reflexive Prop.
$\triangle LMN \cong \triangle OMN$	SAS

(ASA OR AAS ARE ALSO POSSIBLE, DEPENDING ON WHICH INFO. YOU USE)

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G: $\overline{PQ} \cong \overline{PR}$, $\overline{TS} \cong \overline{TR}$
 P: $\angle T \cong \angle S$

Statement	Reason
$\overline{PQ} \cong \overline{PR}$	GIVEN
$\overline{TS} \cong \overline{TR}$	GIVEN
$\angle P \cong \angle P$	REFLEXIVE PROP.
$\triangle PQT \cong \triangle PRS$	SAS
$\angle T \cong \angle S$	CPCTC

