1. In △VGB, which sides include ∠B? $\overline{BV}$, $\overline{GB}$

. In △STN, which angle is included between $\overline{NS}$ and $\overline{TN}$?   ∠N

Which triangles can you prove congruent? Tell whether you would use the SSS or SAS Postulate.

△ABP ≅ △XYP
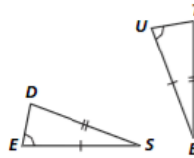
△APD ≅ △XPY

SAS
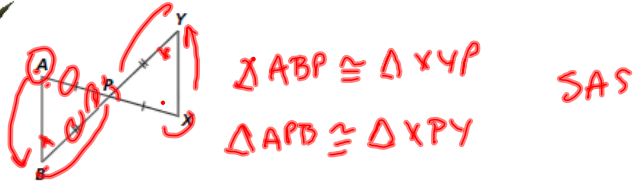
. What other information do you need to prove △DWO ≅ △DWG?

$\overline{DG} \cong \overline{OP}$ ← SSS

or
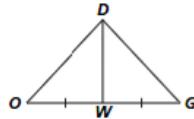
∠OWD ≅ ∠GWD ← SAS

5. Can you prove △SED ≅ △BUT from the information given? Explain.

NO, ~~ASS~~

∠ not incl btwn sides
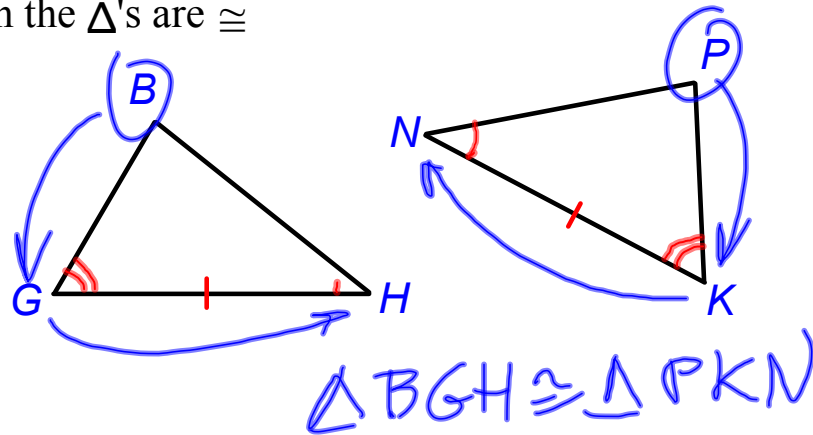

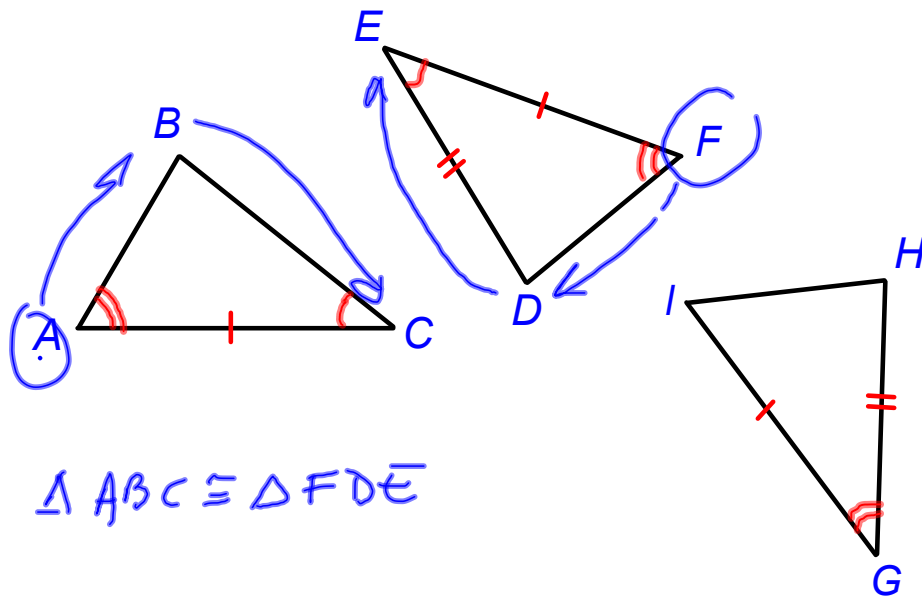List the methods we can now use to prove 2 Δ's ≅.

SSS

SAS

Post 4-3 | ASA Postulate

If 2 ∠'s & incl side of one △ are ≅
   to 2 ∠'s & incl side of 2nd △

then the △'s are ≅

$$\triangle BGH \cong \triangle PKN$$

Name the 2 △'s that are ≅ by *ASA*.

$$\triangle ABC \cong \triangle FD\overline{E}$$

Name the 2 △'s that are ≅ by *ASA.*

$$\Delta ABC \cong \Delta FDE$$
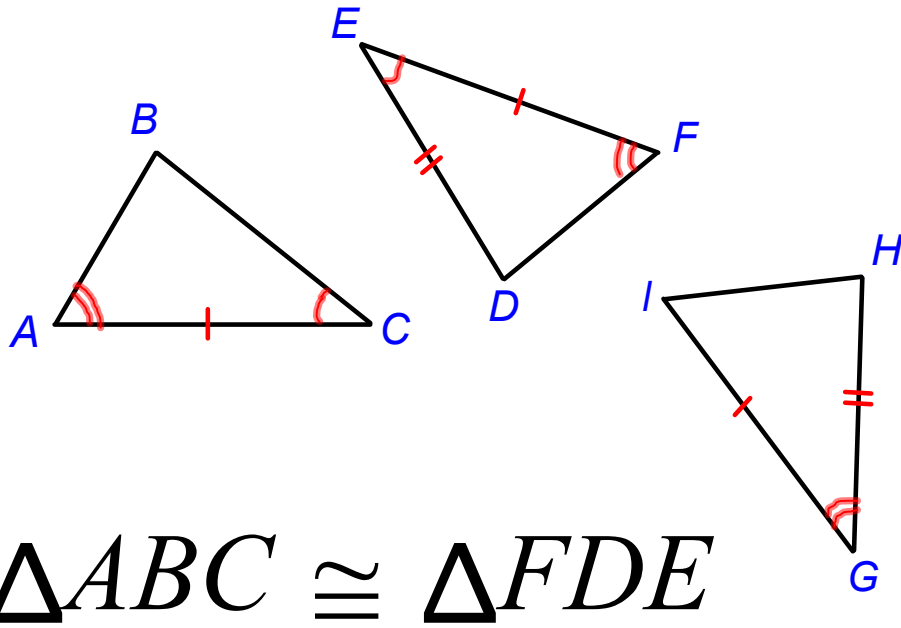
Given: $\angle LKM \cong \angle JKM, \angle LMK \cong \angle JMK$

Prove: $\Delta LKM \cong \Delta JKM$

SSS
SAS
ASA
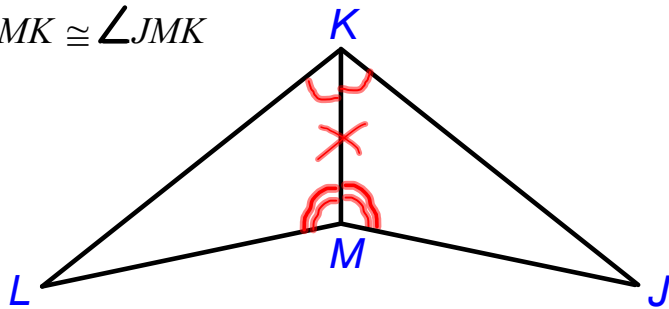
(A) ∠LKM ≅ ∠JKM   given
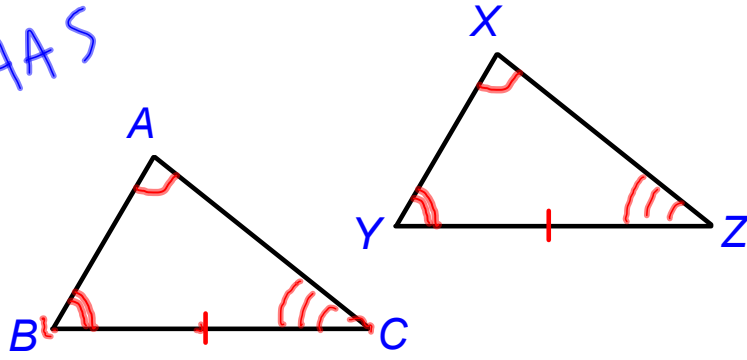
(S) $\overline{KM} \cong \overline{KM}$ Refl POC

(A) ∠LMK ≅ ∠JMK   given

∴   △LKM ≅ △JKM   by ASA

QED

Given: $\angle A \cong \angle X$, } AAS
$\angle B \cong \angle Y$, }
$\overline{BC} \cong \overline{YZ}$

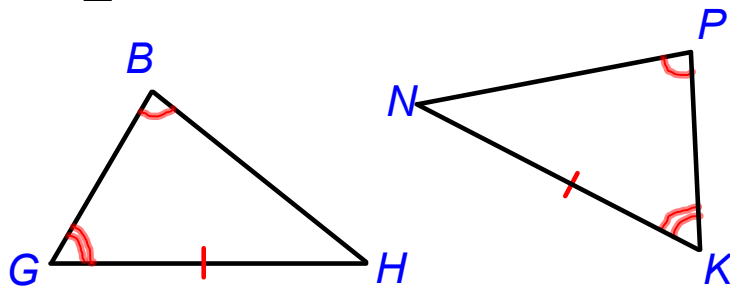Prove: $\triangle ABC \cong \triangle XYZ$

SSS
SAS
ASA

Matt

Ⓐ $\angle B \cong \angle Y$ given

Ⓢ $\overline{BC} \cong \overline{YZ}$ given

Ⓐ $\angle C \cong \angle Z$ Thm 4-1
   $\angle A \cong \angle X$ given

$\triangle ABC \cong \triangle XYZ$ by ASA

Thm 4-2   AAS Theorem

If 2 $\angle$'s & **non**-incl side of one $\triangle$ are $\cong$
  to 2 $\angle$'s & **non**-incl side of 2nd $\triangle$

then the $\triangle$'s are $\cong$

List the methods we can now use to prove 2 Δ's ≅.

ASA

AAS

SAS

SSS

Tell whether AAS or ASA can be used directly to prove the Δ's ≅.
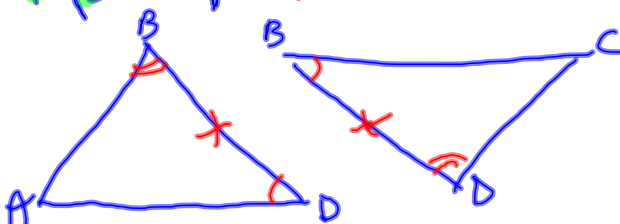
If possible, write the congruence statement.
If not possible, write *not possible*.

△ABD ≅ △CDB by ASA

Christian

Tell whether AAS or ASA can be used directly to prove the Δ's ≅.

If possible, write the congruence statement.
If not possible, write ***not possible***.

F   G

E   H

NP

Would need ∠FEH ≅ ∠FGH
or
∠EFH ≅ ∠FHG

Tell whether AAS or ASA can be used directly to prove the Δ's ≅.

If possible, write the congruence statement.
If not possible, write ***not possible***.

F   G

E   H

Separate
Redraw
Relabel

F   F   G

E   H   H

△ FEH ≅ △ HGF
by AAS

Karleigh

6
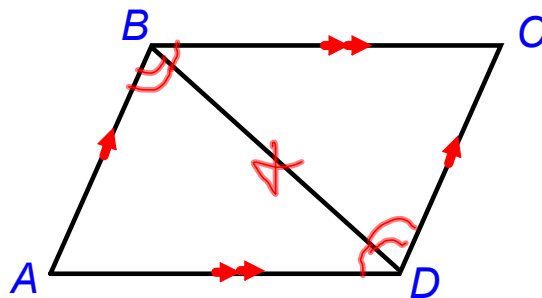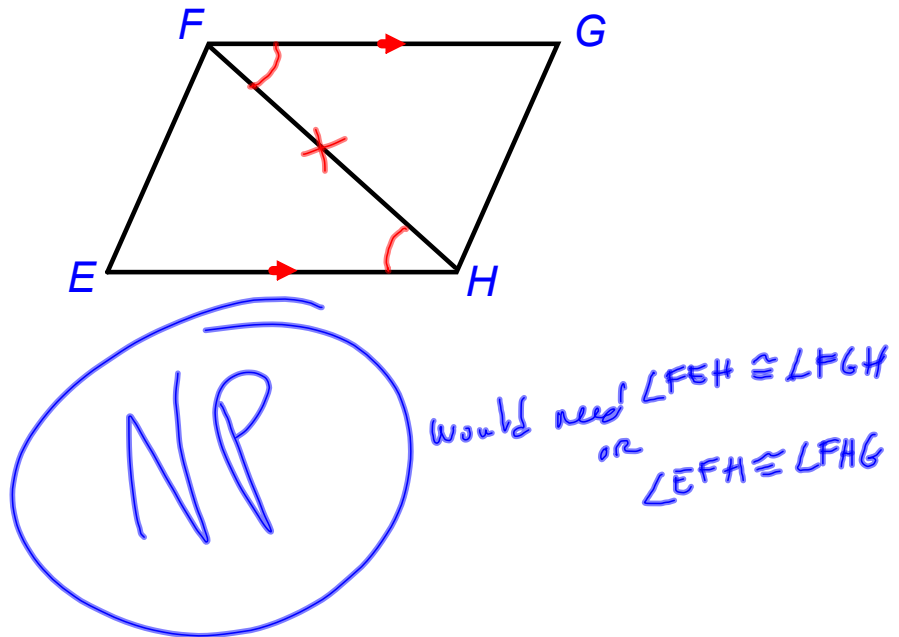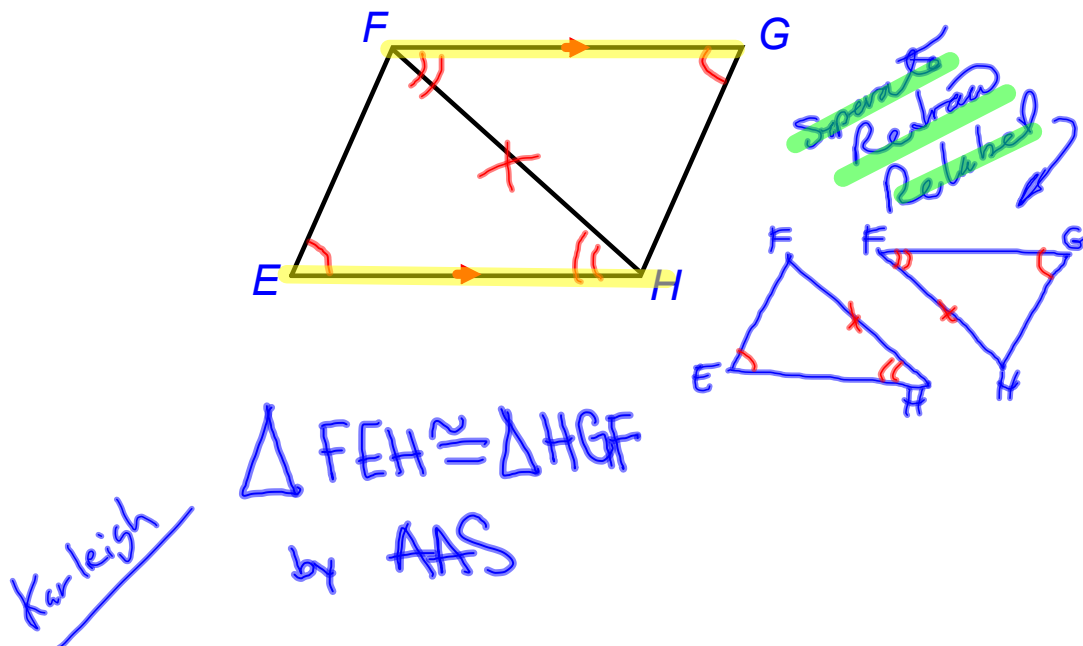
Are the Δ's ≅?
If so, write the congruence statement and identify the postulate.
If not, write not possible.

△ ADC ≅ △ BCD by SAS

What do we know?

$\overline{AD} \cong \overline{BC}$

∠ADC ≅ △ BCD

― and ―

$\overline{DC} \cong \overline{DC}$ (shared)
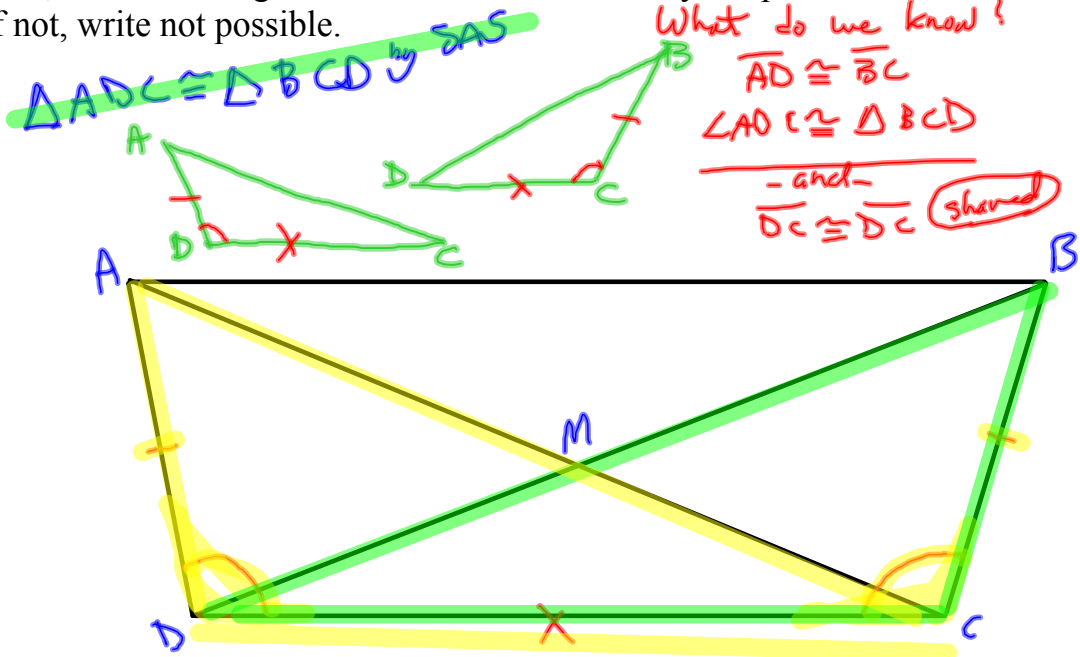
☆ Seperate, Redraw, Relabel ☆

L4-3 HW Problems

Pg 197 #1-25 odd, 29, 31, 33, 42-45

Pg 201 #1-10