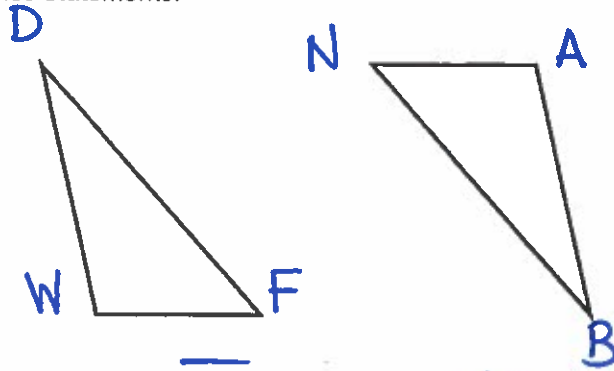


Geometry 1-2
 Congruent Triangles Review

Name Key
 Date _____ Period _____

Level 1:

1. Given that $\triangle DFW \cong \triangle BNA$, correctly label the vertices and mark the congruent parts on the triangles below, then and complete the congruence statements.



$\overline{FD} \cong \overline{NB}$

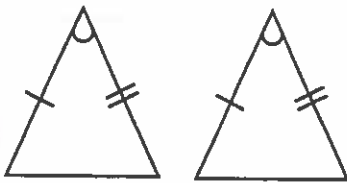
$\overline{NA} \cong \overline{FW}$

$\angle W \cong \angle A$

$\triangle DFW \cong \triangle ANB$

2. Determine whether the triangles pictured below are congruent. If they are congruent, state which postulate (or theorem) can be used to show congruency. (SSS, SAS, ASA, AAS or HL)

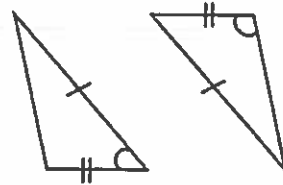
a.



Congruent? yes

Which Postulate or Theorem? SAS

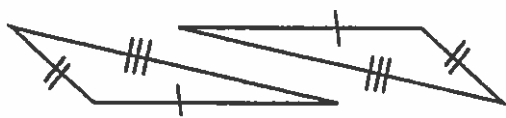
b.



Congruent? NO

Which Postulate or Theorem? _____

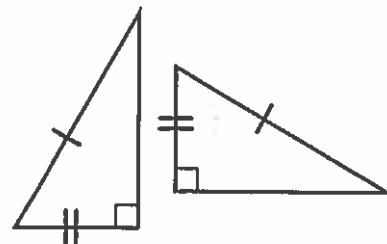
c.



Congruent? yes

Which Postulate or Theorem? SSS

d.

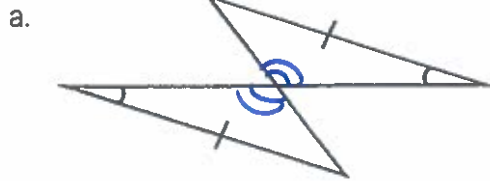


Congruent? yes

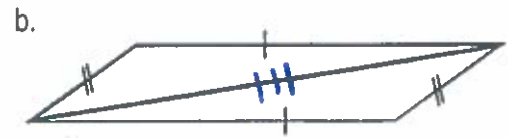
Which Postulate or Theorem? HL

Level 2:

2. Determine whether the triangles pictured below are congruent. If they are congruent, state which postulate (or theorem) can be used to show congruency. (SSS, SAS, ASA, AAS or HL)



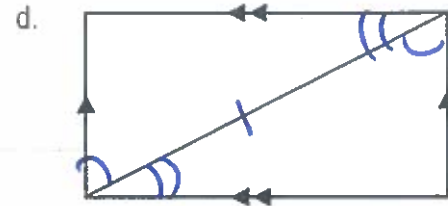
Congruent? ~~AAS~~ YES
 Which Postulate or Theorem? AAS



Congruent? YES
 Which Postulate or Theorem? SSS

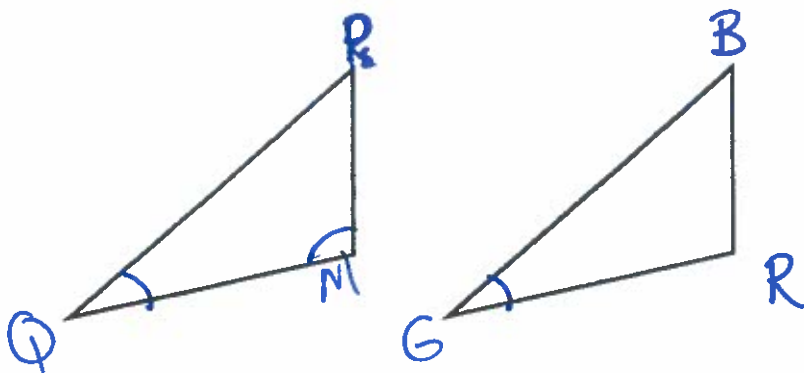


Congruent? YES
 Which Postulate or Theorem? HL



Congruent? YES
 Which Postulate or Theorem? ASA

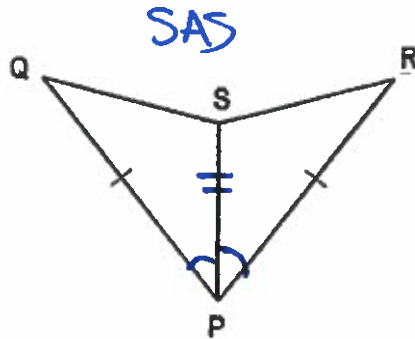
3. If $\triangle QPM \cong \triangle GBR$ by ASA Triangle Congruence, what is the missing congruent pair?
 Draw and mark a diagram. Given: $\angle Q \cong \angle G$ and $\angle M \cong \angle R$.



Missing congruent pair: _____ \cong _____.

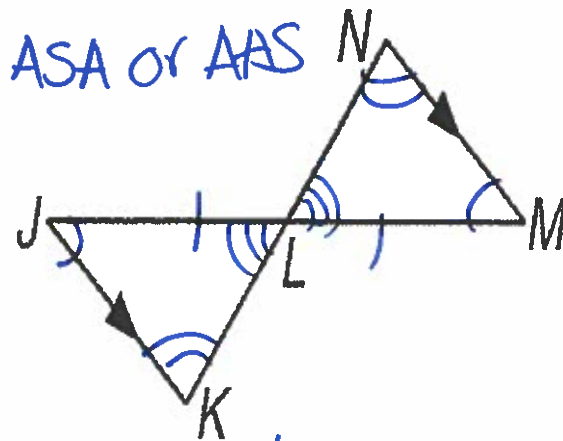
Level 3:

Given: $\overline{RP} \cong \overline{PQ}$, \overline{PS} is the angle bisector of $\angle RPQ$.
 Prove: $\triangle QSP \cong \triangle RSP$



Statements	Reasons
1. $\overline{RP} \cong \overline{PQ}$ \overline{PS} is the Δ bisector of $\angle RPQ$	1. Given
2. $\overline{SP} \cong \overline{SP}$	2. Reflexive Prop
3. $\triangle QSP \cong \triangle RSP$	3. SAS

6. Given: L is the midpoint of \overline{JM} ; $\overline{JK} \parallel \overline{NM}$.
 Prove: $\overline{JK} \cong \overline{MN}$



Statements	Reasons
1. L is the MP of \overline{JM} , $\overline{JK} \parallel \overline{NM}$	1. Given
2. $\angle J \cong \angle M$ $\angle K \cong \angle N$	2. alt. int Δ 's
3. $\overline{JL} \cong \overline{LM}$	3. Def of a M.P.
4. $\triangle JKL \cong \triangle MNL$	4. AAS
5. $\overline{JK} \cong \overline{MN}$	5. CPCTC

Statements	Reasons
1. L is MP of \overline{JM} $\overline{JK} \parallel \overline{NM}$	1. Given
2. $\angle J \cong \angle M$ $\angle K \cong \angle N$	2. alt int Δ 's
3. $\angle JLK \cong \angle MNL$	3. Vert. Δ 's
4. $\triangle JKL \cong \triangle MNL$	4. ASA
5. $\overline{JK} \cong \overline{MN}$	5. CPCTC

Level 4:

7. Eduardo claims that all equiangular triangles are congruent because there are three pairs of congruent angles. Hortence says that he is wrong. Who is correct, and why? If necessary, sketch a diagram that supports your argument.

Hortence is correct there are equiangular triangles that have different side lengths that are not \cong .

