

Lesson 4-7R/4-10L: Mixed Proof Practice

Agenda:

- Check & review homework
- Review for quiz - do 1st page
- Quiz
- Continue to work on packet

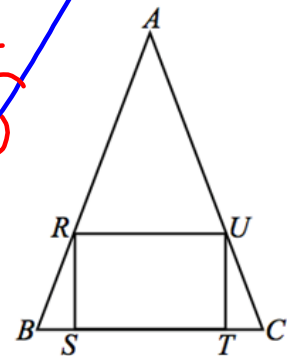
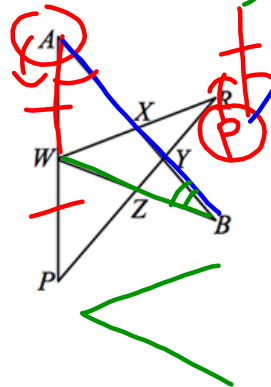
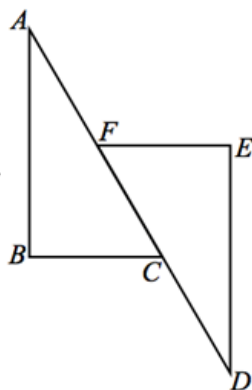
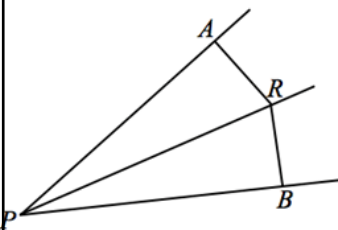
Homework

- Finish packet
- **NEXT TUESDAY - Test Remediation Unit 3**

Nov 18-12:47 PM

4-6R Homework Problem Set

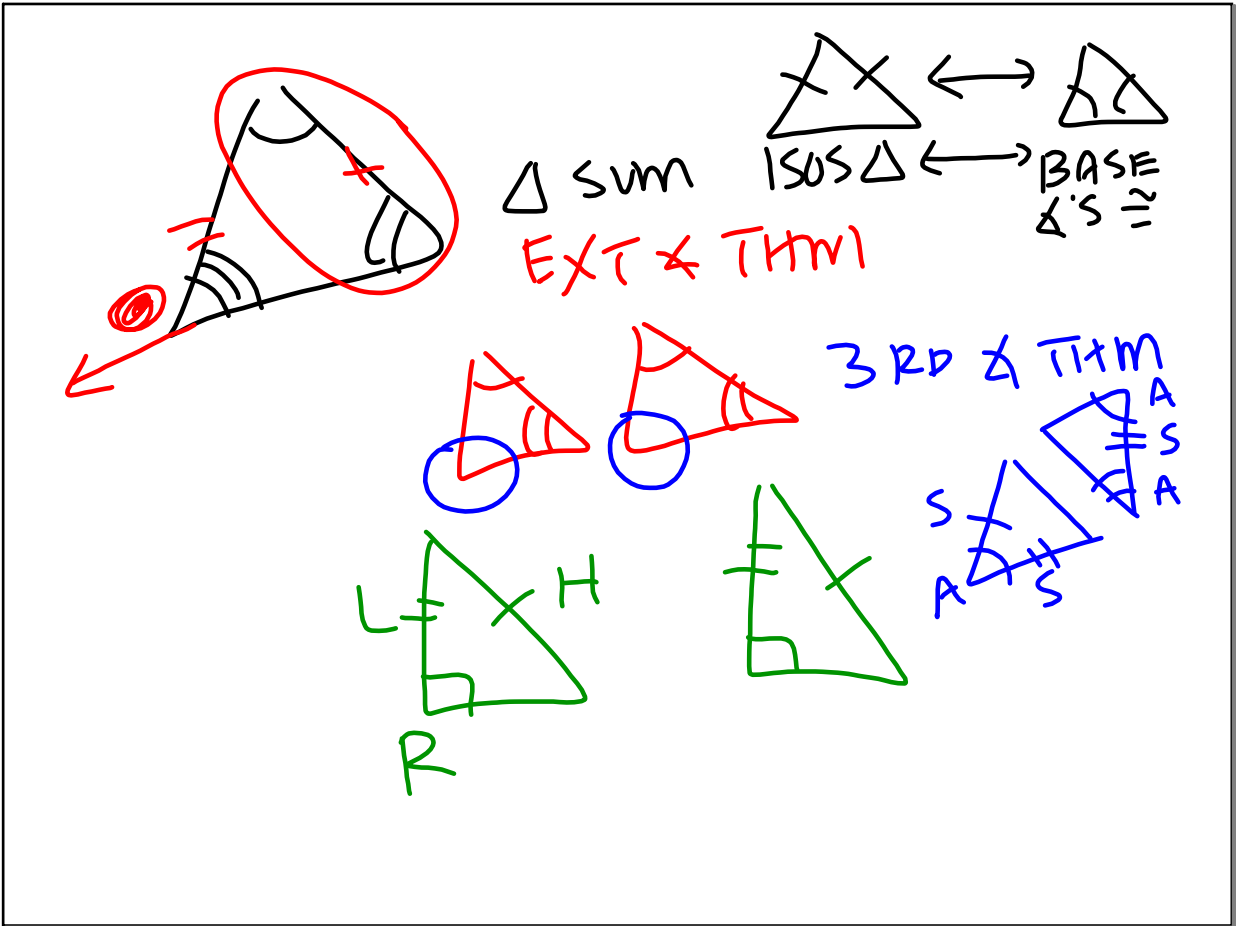
1. RHL 2. AAS 3. AAS 4. See/



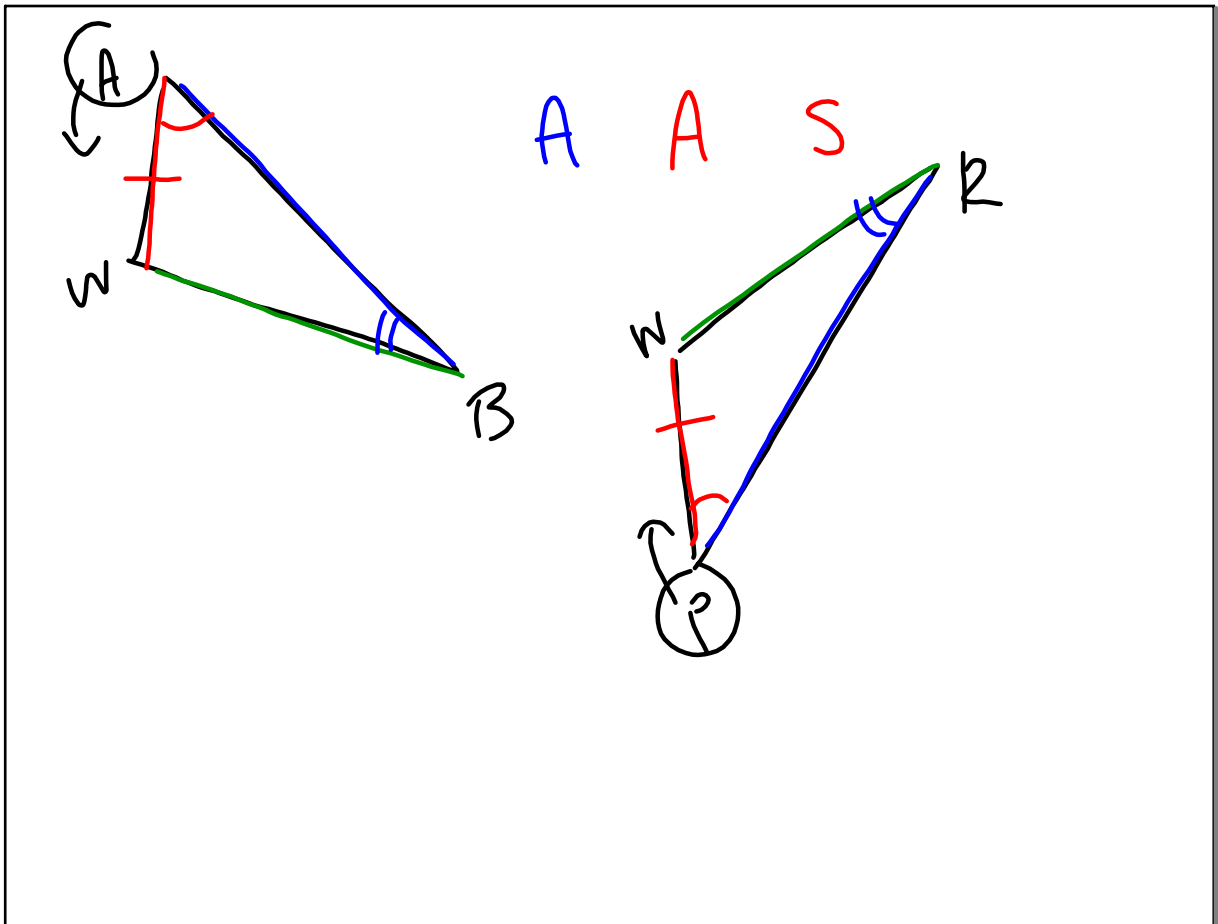
A. Isos Triangle → Base angles congruent so you can use AAS

B. The hypotenuses are congruent

Nov 18-1:10 PM

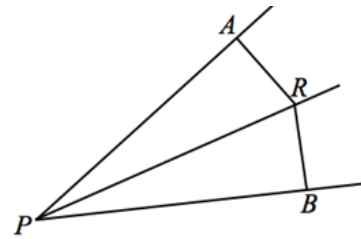


Nov 18-8:45 AM

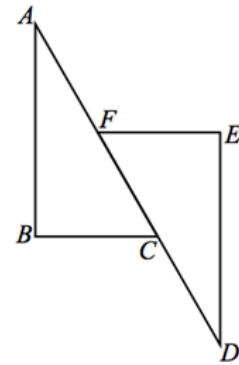


Nov 17-9:46 AM

In the figure, $\overline{PA} \perp \overline{AR}$ and $\overline{PB} \perp \overline{RB}$ and $\overline{PA} \cong \overline{PB}$
 Prove that $\triangle PAR \cong \triangle PBR$



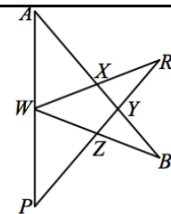
Given: $\overline{AB} \perp \overline{BC}$, $\overline{DE} \perp \overline{EF}$, $\overline{BC} \parallel \overline{EF}$, $\overline{AF} \cong \overline{CD}$
 Prove: $\triangle ABC \cong \triangle DEF$



Nov 18-1:17 PM

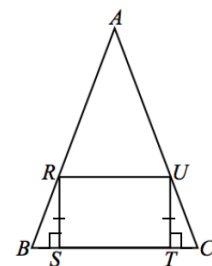
3. Given: $\angle A \cong \angle P$, $\angle B \cong \angle R$, W is the midpoint of \overline{AP}
 Prove: $\triangle AWB \cong \triangle PWR$

- Step 1: Color the correspondence of the triangles in the drawing.
- Step 2: Redraw $\triangle AWB$ and $\triangle PWR$ and recolor their correspondence below:



Do the proof:

4. Given the drawing with the information as marked,
 A) Can you prove $\triangle RBS \cong \triangle UCT$ by AAS \cong AAS if you were also given $\overline{AB} \cong \overline{AC}$?
 Explain your reasoning:

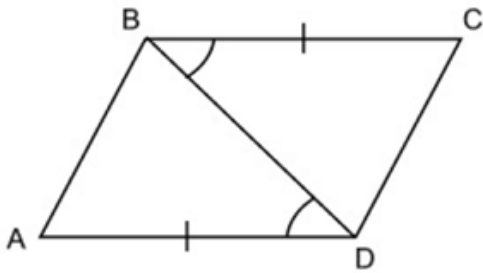


B) What information is needed to prove $\triangle RBS \cong \triangle UCT$ by the R_HL criteria?

Nov 18-1:18 PM

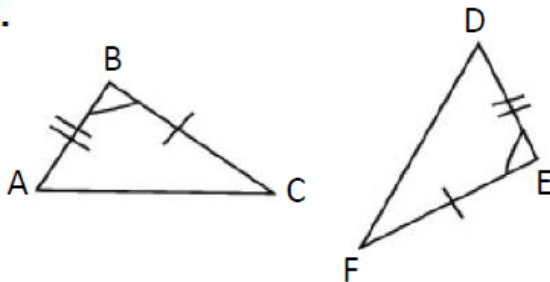
Questions 1-8: For each set of triangles, name the criteria that can be used to prove two congruent triangles and then state the triangle congruency.

1.

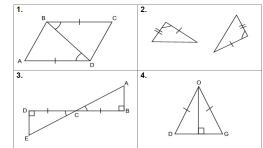


1. $\triangle ABD \cong \triangle$ _____
by _____

2.

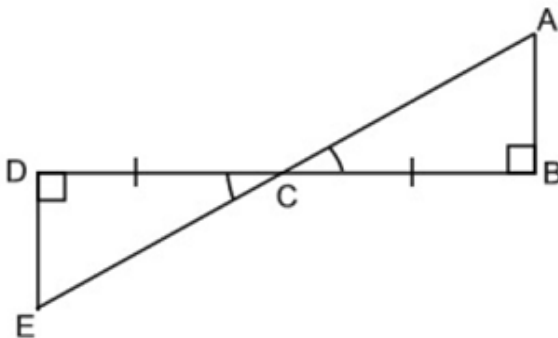


2. $\triangle ABC \cong \triangle$ _____
by _____



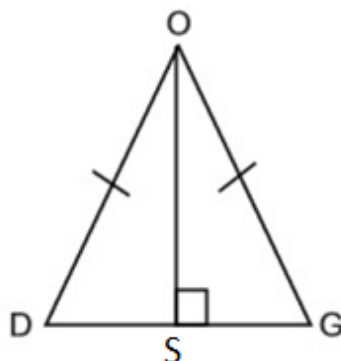
Nov 18-9:19 AM

3.



3. $\triangle DEC \cong \triangle$ _____
by _____

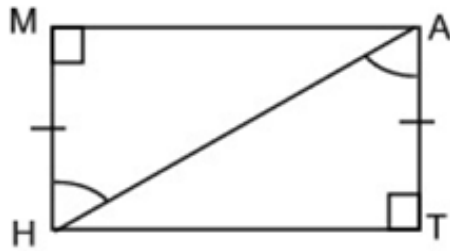
4.



4. $\triangle DOS \cong \triangle$ _____
by _____, _____
NOTE:

Nov 18-12:35 PM

5.

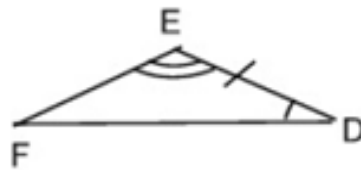
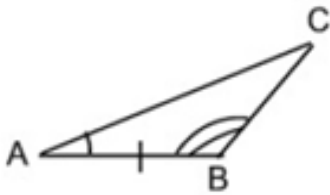


5. $\triangle MHA \cong \triangle$ _____

by _____, _____

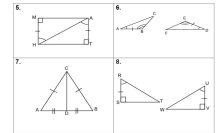
_____, _____

6.



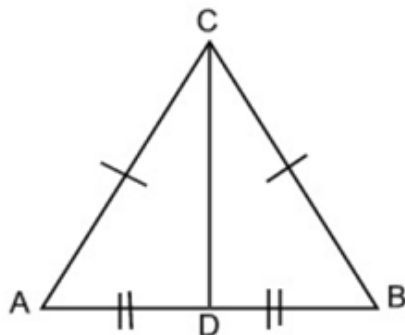
6. $\triangle ABC \cong \triangle$ _____

by _____



Nov 18-9:20 AM

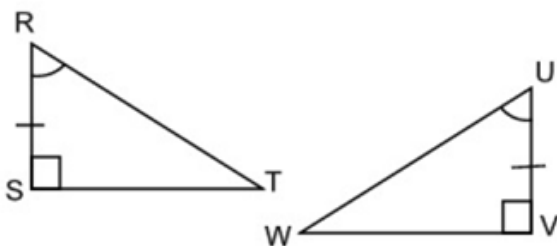
7.



7. $\triangle CAD \cong \triangle$ _____

by _____, _____

8.



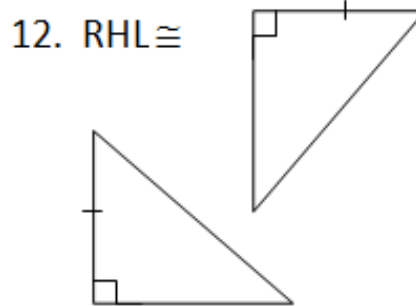
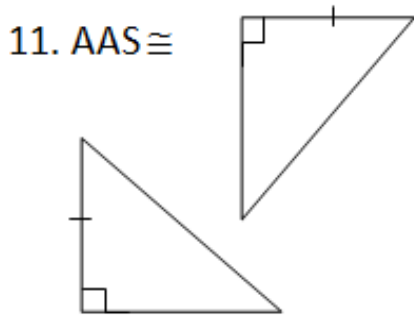
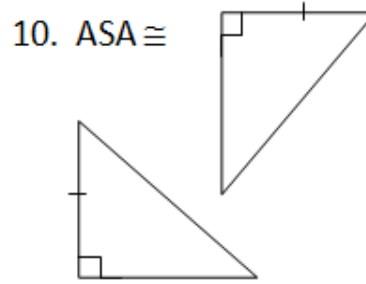
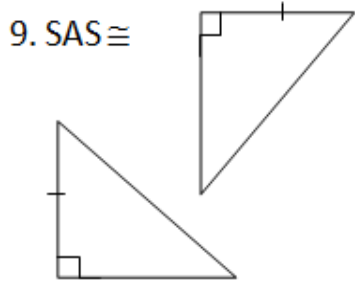
8. $\triangle RST \cong \triangle$ _____

by _____

All Rights Reserved © MathBits.com

Nov 18-12:38 PM

For questions 9-12, given the two triangles with the congruent parts as marked, mark the corresponding parts needed in order to prove the triangles congruent by the designated criteria:



Nov 18-12:39 PM

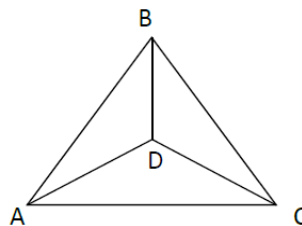
PROBLEM SET 4-7R / 4-10L

Determine the congruency criteria that applies to prove the following sets of triangles are congruent based on the given information and the drawing.

1. Given: \overline{BD} bisects $\angle ABC$; $\overline{AB} \cong \overline{CB}$

Prove: $\triangle ABD \cong \triangle CBD$

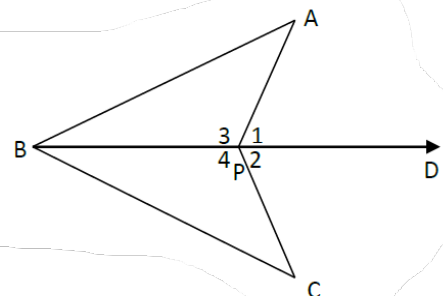
Criteria: _____



2. Given: $\angle 1 \cong \angle 2$, \overline{BD} bisects $\angle ABC$

Prove: $\triangle BAP \cong \triangle BCP$

Criteria: _____

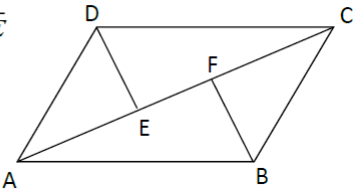


Nov 16-3:09 PM

3. Given: $\overline{AD} \parallel \overline{CB}$, $\angle ADE \cong \angle CBF$, $\overline{AF} \cong \overline{CE}$

Prove: $\triangle ADE \cong \triangle CBF$

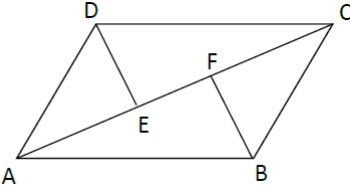
Criteria: _____



4. Given: $\overline{AD} \cong \overline{CB}$, $\angle AED \cong \angle CFB$ are right angles, $\overline{AE} \cong \overline{CF}$

Prove: $\triangle ADE \cong \triangle CBF$

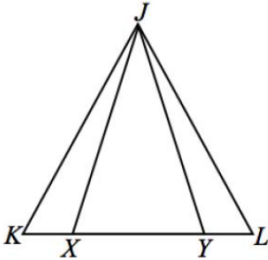
Criteria: _____



5. Given: $\overline{JK} \cong \overline{JL}$; $\overline{JX} \cong \overline{JY}$

Prove: $\triangle JKX \cong \triangle JLY$

Criteria: _____



Module 1, Lesson 27

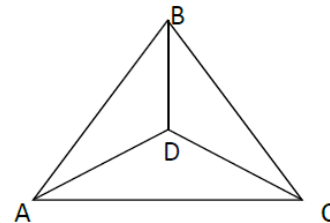
Nov 16-3:09 PM

Determine the information needed in order to satisfy the specified congruency criteria:

6. Given: $\angle DAB \cong \angle DCB$ and $\overline{AB} \cong \overline{CB}$

Prove: $\triangle ABD \cong \triangle CBD$ by $SAS \cong SAS$

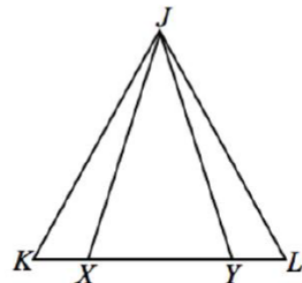
Information needed: _____



7. Given: $\overline{JK} \cong \overline{JL}$

Prove: $\triangle JKX \cong \triangle JLY$ by $ASA \cong ASA$

Information needed: _____

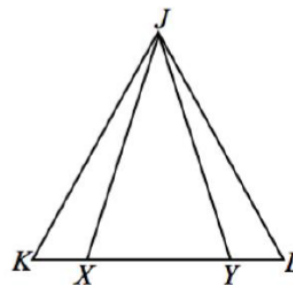


Nov 16-3:10 PM

8. Given: $\angle JXY \cong \angle JYX$

Prove: $\triangle JKY \cong \triangle JLY$ by $SAS \cong SAS$

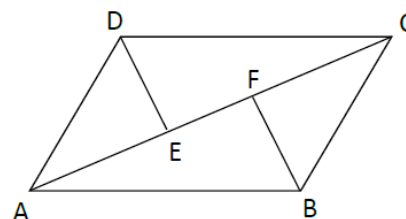
Information needed: _____



9. Given: $\overline{DE} \perp \overline{AC}, \overline{BF} \perp \overline{AC}, \overline{DE} \cong \overline{BF}$

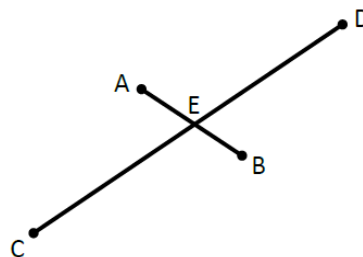
Prove: $\triangle DEC \cong \triangle BFA$ by $RHL \cong RHL$

Information needed: _____



Nov 16-3:10 PM

10. Given the two line segments \overline{AB} and \overline{CD} which bisect each other at point E, explain why $AC=DB$.

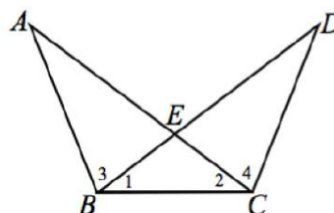


Nov 16-3:10 PM

Do the following proofs using your choice of format:

11. Given: $\angle 3 \cong \angle 4$; $\angle 1 \cong \angle 2$

Prove: $\triangle AEB \cong \triangle DEC$

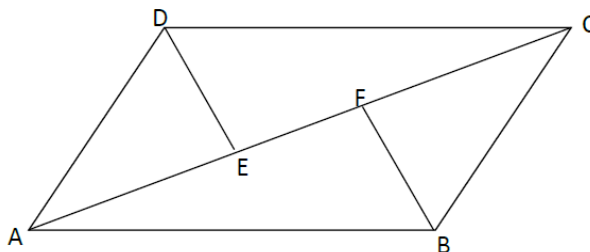


Module 1, Lesson 26

12. Given:

$\overline{AD} \parallel \overline{CB}$, $\overline{AD} \cong \overline{CB}$
 $\overline{AF} \cong \overline{CE}$

Prove: $\triangle AED \cong \triangle CFB$



Extra Credit Challenge

Do on separate paper

Given:

$\overline{AB} \perp \overline{BC}$, $\overline{BC} \perp \overline{DC}$.

\overline{DB} bisects $\angle ABC$, \overline{AC} bisects $\angle DCB$.

$EB = EC$.

Prove:

$\triangle BEA \cong \triangle CED$

