Bell Ringer

Tuesday 1/28

State if the triangles are congruent by ASA or AAS – then write a congruence statement. If there is not enough information to prove they are congruent, state what information is missing.

1. ASA: $\overline{AC} \cong \overline{XZ}$, $\overline{CB} \cong \overline{ZY}$, $\angle C \cong \angle Z$; $\angle A \cong \angle X$

2. AAS

3. AAS

4. Given: X and Z are right angles, $\angle XWY \cong \angle ZYW$. $\angle B \cong \angle Y$
Prove: $\Delta WYX \cong \Delta YZW$

S	R
A 1. $\angle X$ & $\angle Z$ are right $\angle$'s	1. Given
A $\angle XWY \cong \angle ZYW$	
S 2. $\overline{YW} \cong \overline{YW}$	2. Reflexive P.
3. $\Delta WYX \cong \Delta YZW$	3 AAS congruence

Jan 2-4:14 PM

- 12.5 online hw due today
- Week #9 Packet due today - hand in
- 12.6 online hw due tomorrow
- Ch 12 Test Friday!
- Ch 11 Test Retakes due Friday!

Jan 5-11:19 AM

Name the property the statement illustrates.

1. If $RU = WX$ and $WX = YZ$, then $RU = YZ$. Transitive P.
2. $\angle A \cong \angle A$ Reflexive P.
3. If $\angle B \cong \angle C$, then $\angle C \cong \angle B$. Symmetric P.
4. $JK = JK$ Reflexive P.
5. If $LM = NP$, then $NP = LM$. Symmetric P.
6. If $\angle Q \cong \angle R$ and $\angle R \cong \angle S$, then $\angle Q \cong \angle S$ Transitive P.

Warm Up 1-3

Essential Question

How can you use congruent triangles to make an indirect measurement?

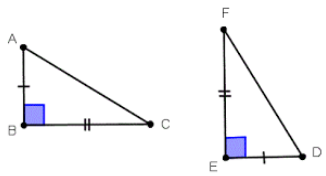
Essential Question

Once you prove two triangles are congruent, you can then conclude all of their corresponding sides and angles are also congruent because:

"**C**orresponding **P**arts of **C**ongruent **T**riangles are **C**ongruent." or **CPCTC**

Jan 5-11:25 AM

Prove $\overline{AC} \cong \overline{DF}$



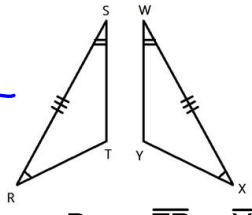
Prove <A ≅ <D

1. $\angle B$ & $\angle E$ are 90° $\overline{AB} \cong \overline{EF}$ $\overline{BC} \cong \overline{EF}$	1. Given
2. $\Delta ABC \cong \Delta DEF$	2. SAS
3. $\overline{AC} \cong \overline{DF}$	3. CPCTC

Feb 7-7:51 AM

Prove <T ≅ <Y

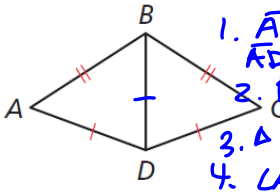
S	R
1. $\overline{RS} \cong \overline{WX}$	1. Given
$\angle S \cong \angle W$	
$\angle R \cong \angle X$	
2. $\triangle RST \cong \triangle XWY$	2. ASA
3. $\angle T \cong \angle Y$	3. CPCTC
$\overline{TR} \cong \overline{YX}$	3. CPCTC



Prove $\overline{TR} \cong \overline{YX}$

Feb 7-7:55 AM

Prove $\angle A \cong \angle C$.

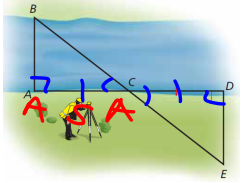


S	R
1. $\overline{AB} \cong \overline{CB}$, $\overline{AD} \cong \overline{DC}$	1. Given
2. $\overline{BD} \cong \overline{BD}$	2. Reflexive P.
3. $\triangle ABD \cong \triangle CBD$	3. SSS
4. $\angle A \cong \angle C$	4. CPCTC

Monitoring Progress 1-2

The figure shows how a surveyor can measure the width of a river by making measurements on only one side of the river.

Write a proof that explains how the surveyor can find the width of the river.



Given: $\angle A$ is a right angle, $\angle D$ is a right angle, $\overline{AC} \cong \overline{CD}$
Prove: $\overline{AB} \cong \overline{DE}$

Statement	Reason

Exploration 1a-b

Explain how you can use the given information to prove that the hang glider parts are congruent.

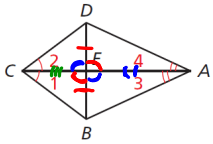
Given $\angle 1 \cong \angle 2$, $\angle RTQ \cong \angle RTS$
Prove $\overline{QT} \cong \overline{ST}$

Statement	Reason

Example 1

Use the given information to *write a plan* for proof.

Given $\angle 1 \cong \angle 2$, $\angle 3 \cong \angle 4$
Prove $\triangle BCE \cong \triangle DCE$

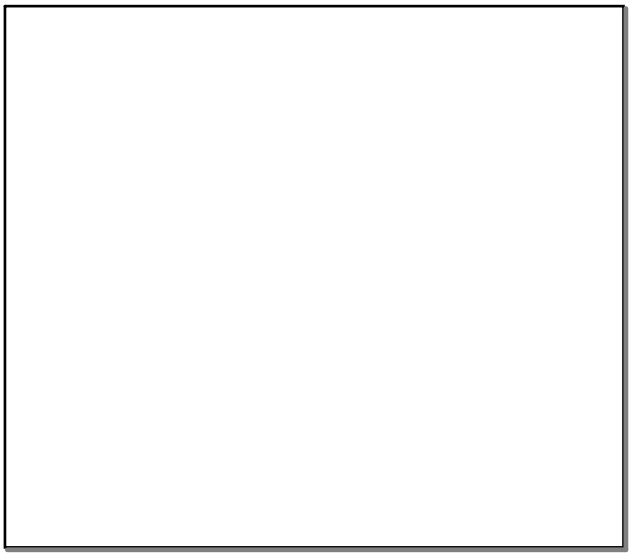


Example 3

due Thursday

12.7 online hw
Pg 637-638 #s 1, 3-8, 10-11, 15, 19, 21

Jan 5-11:53 AM



Jan 5-12:59 PM