

11.2H Triangle Congruence (SSS & SAS)

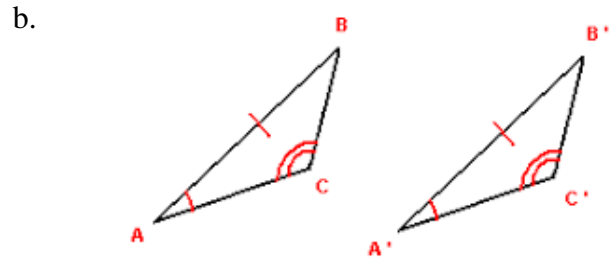
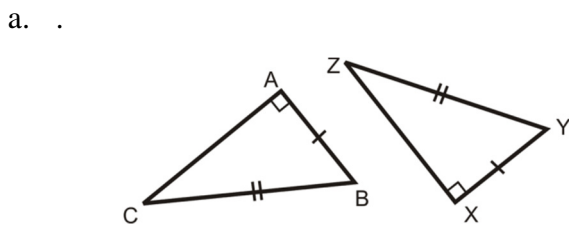
Name: _____ Per: _____

SHOW YOUR WORK AND WORK IN PENCIL

1. Tell which theorem, if any, make the sets of triangles congruent. State the congruent triangles.

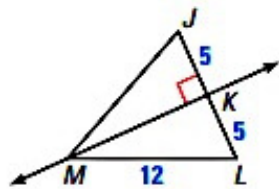
<p>a. _____ $\triangle ABC \cong \triangle$ _____</p>	<p>b. _____ $\triangle DCA \cong \triangle$ _____</p>	<p>c. _____ $\triangle CBA \cong \triangle$ _____</p>
<p>d. _____ $\triangle ABE \cong \triangle$ _____</p>	<p>e. _____ $\triangle ADB \cong \triangle$ _____</p>	<p>f. _____ $\triangle MAD \cong \triangle$ _____</p>

2. Tell whether the pair of triangles are congruent based only on their marks. and list the triangles. If they are congruent, list the theorem you would use. If they are not, explain.



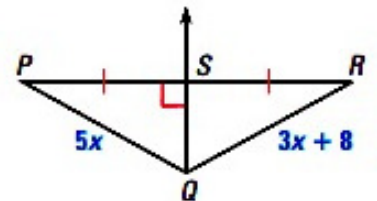
3. Use the information to find the side lengths. Explain how you know (

a. Find JM



Explain:

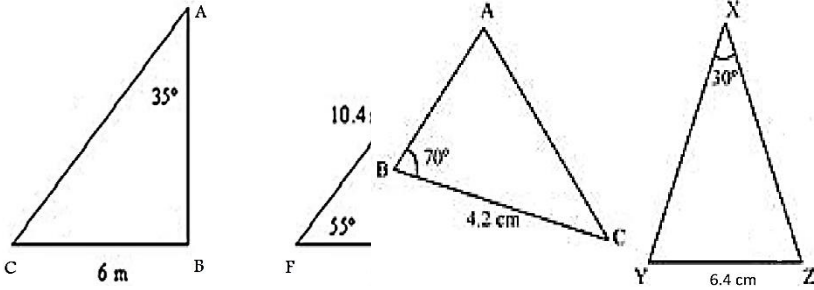
b. Find QR



I know	Because

I know	Because

4. Assume $\triangle ABC \cong \triangle DEF$. Find all missing side lengths and angle measures.

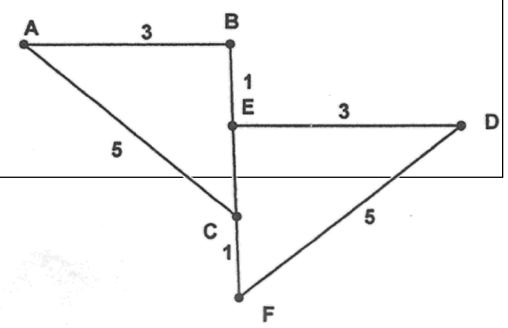


5. Assume $\triangle ABC \cong \triangle YZX$. Find all missing side lengths and angle measures.

6. Find the missing angles in the following images

<p>a.</p> <p>$\angle h = \underline{\hspace{2cm}}^\circ$</p>	<p>$\angle x = \underline{\hspace{2cm}}^\circ$ $\angle y = \underline{\hspace{2cm}}^\circ$</p>	<p>b.</p> <p>$y = \underline{\hspace{2cm}}$ $x = \underline{\hspace{2cm}}$</p>
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7. Determine whether $\triangle ABC \cong \triangle DEF$. Give a detailed explanation of why or why not.



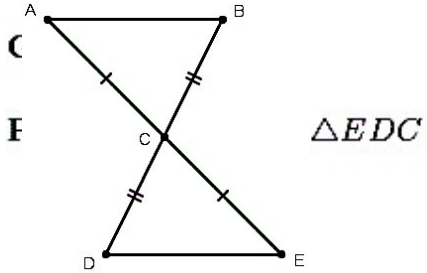
8. Fill in the blanks for the following proof.

Given: $\overline{JK} \cong \overline{NK}$
 A is the midpoint of \overline{JN}
 e: $\triangle JAK \cong \triangle NAK$

Statement	Reason
	Given
A bisects \overline{JN}	
	_____ (equal to itself)

$\overline{AK} \cong \overline{NA}$	
$\triangle JAK \cong \triangle$	By _____ Theorem

9. Fill in the blanks for the following proof.



Statement	Reason
$\overline{AC} \cong \overline{EC}$	
	Given
$\angle ACB \cong \angle$ _____	
\triangle _____ $\cong \triangle EDC$	By _____ Theorem