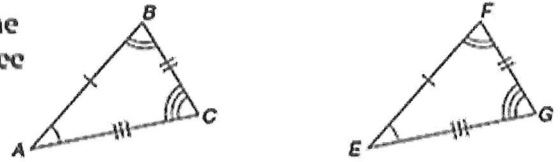


Name: _____

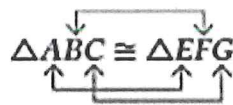
Hour: _____

Notes on Congruent Triangles 4.3- 4.5

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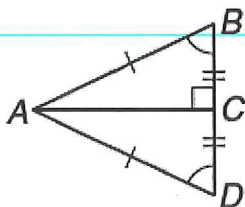
The corresponding sides and angles can be determined from any congruence statement by following the order of the letters.

1. If $\triangle RST \cong \triangle UWV$, complete each pair of congruent parts.

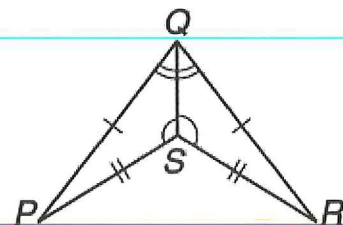
$$\begin{array}{lll} \angle R \cong \underline{\hspace{2cm}} & \underline{\hspace{2cm}} \cong \angle W & \angle T \cong \underline{\hspace{2cm}} \\ \overline{RT} \cong \underline{\hspace{2cm}} & \underline{\hspace{2cm}} \cong \overline{UW} & \underline{\hspace{2cm}} \cong \overline{WV} \end{array}$$

2. Identify the congruent triangles in each diagram.

a.



b.



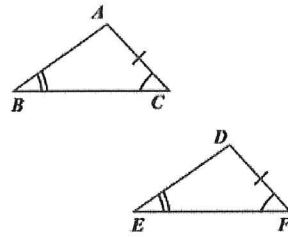
This takes too long!!!!!! Let's see if there are any shortcuts!

Triangle Congruence Shortcut - Side Side Side (SSS)



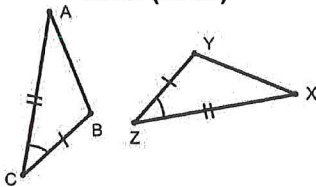
Does SSS work for Triangle Congruence?

Triangle Congruence Shortcut-Side Angle Angle (SAA or AAS)



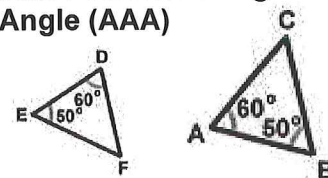
Does SAA work for Triangle Congruence?

Triangle Congruence Shortcut - Side Angle Side (SAS)



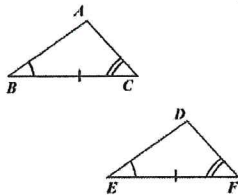
Does SAS work for Triangle Congruence?

Triangle Congruence Shortcut-Angle Angle Angle (AAA)



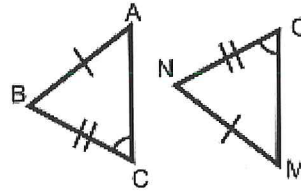
Does AAA work for Triangle Congruence?

Triangle Congruence Shortcut-Angle Side Angle (ASA)

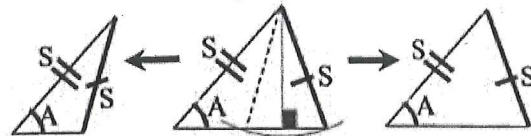


Does ASA work for Triangle Congruence?

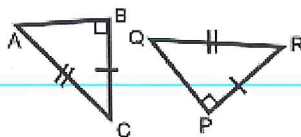
Triangle Congruence Shortcut – Angle Side Side (ASS!?!?!?#%\$#!)



Does SSA or ASS work for Triangle Congruence?



Triangle Congruence Shortcut – Hypotenuse Leg (HL)



Does HL work for Triangle Congruence?

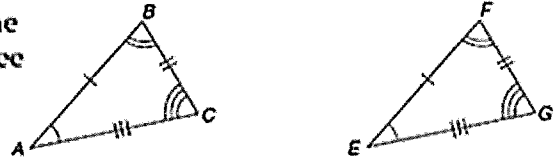
What are the shortcuts that work?

Name: _____

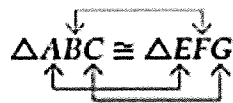
Hour: _____

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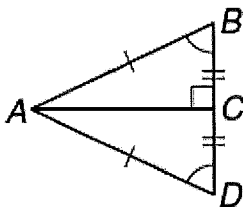
The corresponding sides and angles can be determined from any congruence statement by following the order of the letters.

1. If $\triangle RST \cong \triangle UWV$, complete each pair of congruent parts.

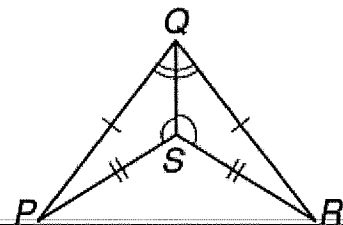
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2. Identify the congruent triangles in each diagram.

a.



b.



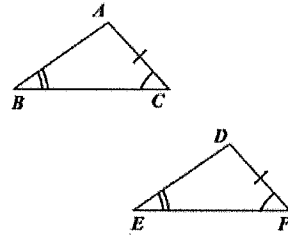
This takes too long!!!!!!! Let's see if there are any shortcuts!

Triangle Congruence Shortcut - Side Side Side (SSS)



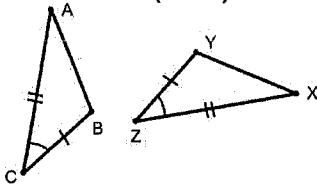
Does SSS work for Triangle Congruence?

Triangle Congruence Shortcut-Side Angle Angle (SAA or AAS)



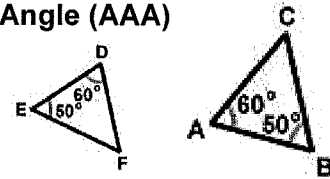
Does SAA work for Triangle Congruence?

Triangle Congruence Shortcut - Side Angle Side (SAS)



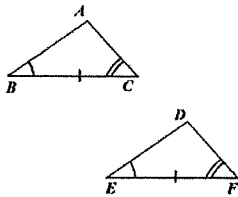
Does SAS work for Triangle Congruence?

Triangle Congruence Shortcut-Angle Angle Angle (AAA)



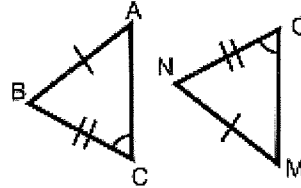
Does AAA work for Triangle Congruence?

Triangle Congruence Shortcut-Angle Side Angle (ASA)

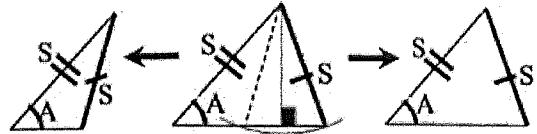


Does ASA work for Triangle Congruence?

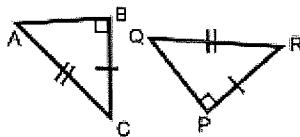
Triangle Congruence Shortcut – Angle Side Side (ASS!?!?!#%#!)



Does SSA or ASS work for Triangle Congruence?



Triangle Congruence Shortcut – Hypotenuse Leg (HL)



Does HL work for Triangle Congruence?

What are the shortcuts that work?

Name: Key

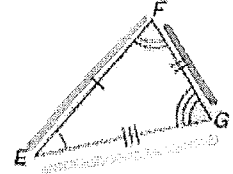
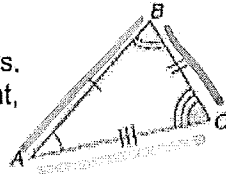
Hour: _____

Notes on Congruent Triangles

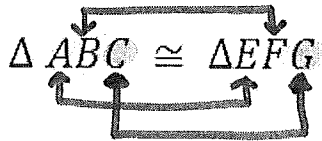
(Geometry Book Sections 4.3- 4.5)

Corresponding Parts of Congruent Triangles

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$$\angle A \cong \angle E$$

$$\angle B \cong \angle F$$

$$\angle C \cong \angle G$$

$$\overline{AB} \cong \overline{EF}$$

$$\overline{BC} \cong \overline{FG}$$

$$\overline{AC} \cong \overline{EG}$$

1. If $\triangle RST \cong \triangle UVW$, complete each pair of congruent parts.

$$\angle R \cong \angle U$$

$$\angle S \cong \angle W$$

$$\angle T \cong \angle V$$

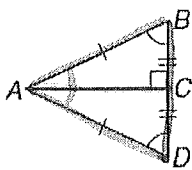
$$\overline{RT} \cong \overline{UV}$$

$$\overline{RS} \cong \overline{UW}$$

$$\overline{ST} \cong \overline{WV}$$

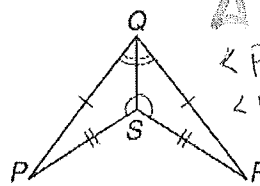
2. Identify the congruent triangles in each diagram.

a.



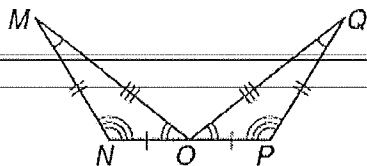
$AB \cong AD$
 $BC \cong CD$
 $\angle B \cong \angle D$
 $\triangle ABC \cong \triangle ADC$

b.

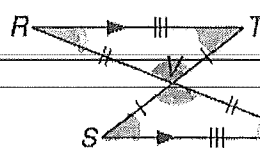


$\triangle QSP \cong \triangle QSR$
 $\angle PQS \cong \angle RQS$
 $\angle PSQ \cong \angle RSQ$
 $\angle P \cong \angle R$
 $PQ = RQ$
 $PS = SR$
 $QS = QS$

c.



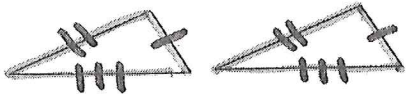
d.



$\triangle RTV \cong \triangle SUV$
 $\angle V \cong \angle V$
 $\angle R \cong \angle S$
 $\angle T \cong \angle U$
 $RT \cong SU$
 $TV \cong UV$
 $RV \cong UV$

This takes too long!!!!!! Let's see if there are any shortcuts!

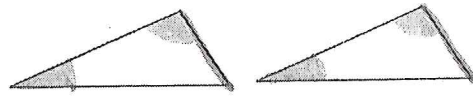
Triangle Congruence Shortcut - Side Side Side (SSS)



Does SSS work for Triangle Congruence?

Yes

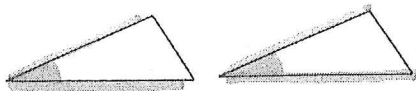
Triangle Congruence Shortcut-Side Angle Angle (SAA or AAS)



Does SAA work for Triangle Congruence?

Yes

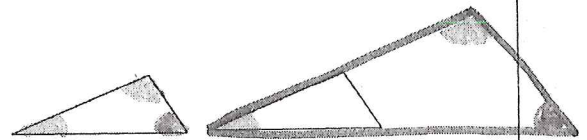
Triangle Congruence Shortcut - Side Angle Side (SAS)



Does SAS work for Triangle Congruence?

Yes

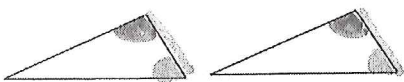
Triangle Congruence Shortcut-Angle Angle Angle (AAA)



Does AAA work for Triangle Congruence?

No

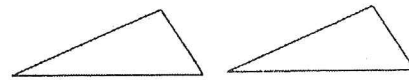
Triangle Congruence Shortcut-Angle Side Angle (ASA)



Does ASA work for Triangle Congruence?

Yes

Triangle Congruence Shortcut - Angle Side Angle (ASS!?!?!?#%#!)



Does SSA or ASS work for Triangle Congruence?

NO

No Swearin in math!

Triangle Congruence Shortcut - Hypotenuse Leg (HL)



Does HL work for Triangle Congruence?

Yes

What are the shortcuts that we showed work?

SSS, ~~SSA~~, SAA, SAS, ASA, HL