

Created by Mr. Lischwe

Warmup 4 / (# of days in $2\frac{4}{7}$ weeks)

- Draw a picture of each of the following. Mark Your Diagram!

Supplies Needed:

Whiteboard

1. An Angle Bisector
2. A Midpoint
3. Parallel Lines Cut by a Transversal
4. A Regular Hexagon

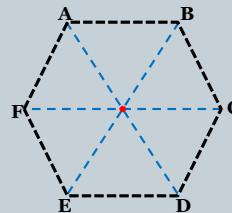
○ Get out your homework!

Homework Answers

What triangle congruence shortcuts work?

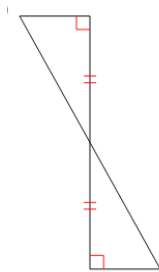
Rotational Symmetry

- A clockwise rotation of how many degrees would map vertex A onto vertex E?

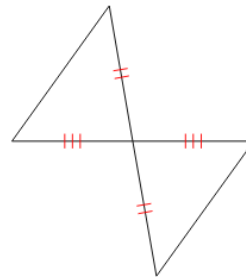


Each vertex:
 60°
 $60 \cdot 4 = 240^\circ$

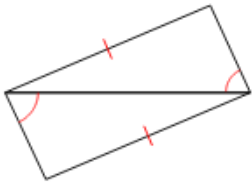
State if the two triangles are congruent. If they are, state how you know.

**ASA**

State if the two triangles are congruent. If they are, state how you know.

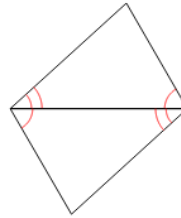
**SAS**

State if the two triangles are congruent. If they are, state how you know.

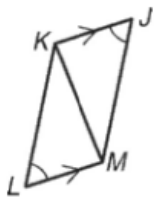


none

State if the two triangles are congruent. If they are, state how you know.

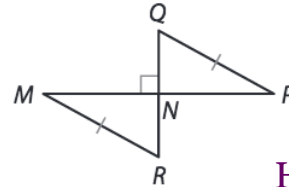


ASA



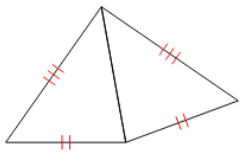
AAS

N is the midpoint of \overline{MP} . $\overline{QN} \cong \overline{RN}$



HL

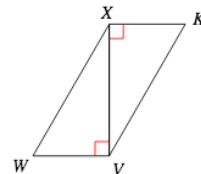
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SSS

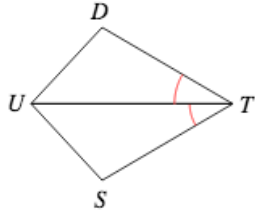
State what additional information you need to prove the triangles are congruent for the given shortcut

SAS



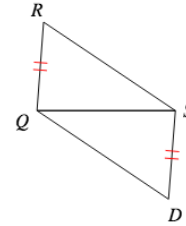
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○
ASA



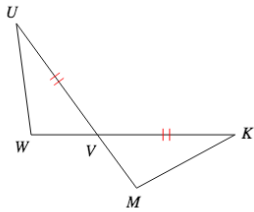
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○
SSS



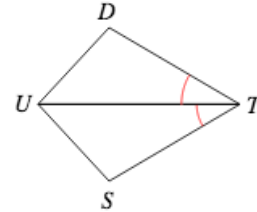
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○
SAS

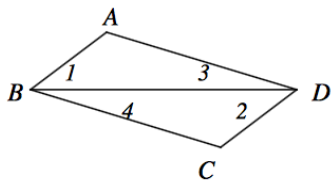


State what additional information you need to prove the triangles are congruent for the given shortcut

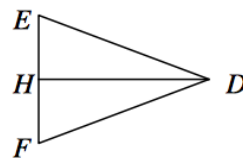
○
ASA



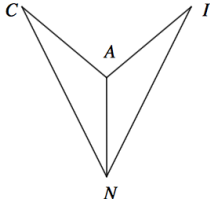
Given: $\angle 1 \cong \angle 2$
 $\angle 3 \cong \angle 4$
Prove: $\triangle ABD \cong \triangle CDB$



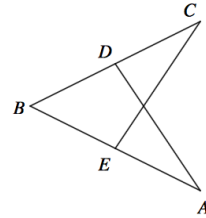
Given: $\overline{DE} \cong \overline{DF}$
 $\overline{EH} \cong \overline{HF}$
Prove: $\triangle DHE \cong \triangle DHF$



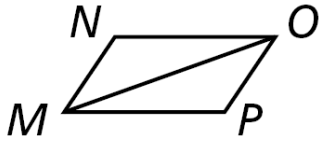
Given: \overline{AN} bisects $\angle CNI$
 $\angle C \cong \angle I$
 Prove: $\triangle CAN \cong \triangle IAN$



Given: $\angle A \cong \angle C$
 $\overline{AB} \cong \overline{BC}$
 Prove: $\triangle CBE \cong \triangle ABD$



Given: $\overline{NO} \parallel \overline{MP}$, $\angle N \cong \angle P$
 Prove: $\angle NMO \cong \angle POM$



Given: J is the midpoint of \overline{KM} and \overline{NL} .
 Prove: $\angle LKJ \cong \angle NMJ$

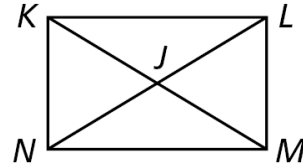
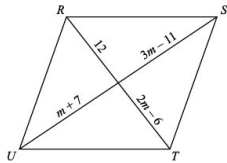


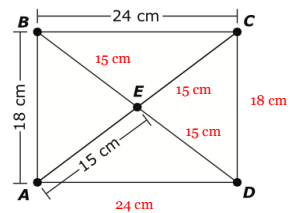
Figure $RSTU$ is a parallelogram.



What is the length of \overline{US} , in units?

32

Rectangle $ABCD$ is shown.



Find all remaining segment lengths