Geometry Regents Lomac 2015-2016 **Date** 11/16 **due** 11/17 **Congruent Triangles SAS Proofs 4.3R**

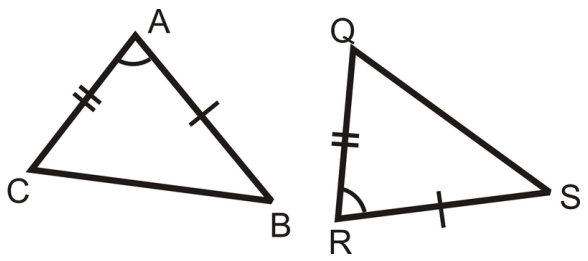
Name _____ **Per**_____

LO: I can use the SAS shortcut for proving that two triangles are congruent to determine whether or not two triangles are congruent and write a proof.

☐ **DO NOW** On the back of this packet

☐ (1) ☐ Given: The diagram as marked

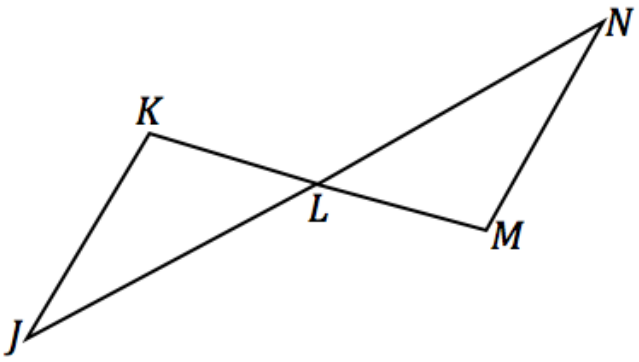
Prove that △ABC ≅ △RSQ or explain why you cannot.



I know that . . .	**because . . .**

☐ (2) ☐ Given: $\overline{KM}$ and $\overline{JN}$ bisect each other.

Prove that △JKL ≅ △NML or explain why you cannot.

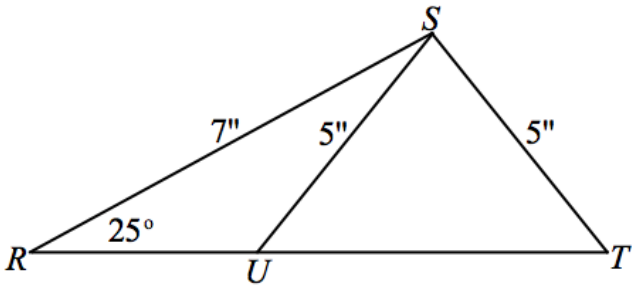


I know that . . .	**because . . .**

4.3R

☐ (3) ☐ Given: $m\angle R = 25°$, $RT = 7"$, $SU = 5"$, $ST = 5"$

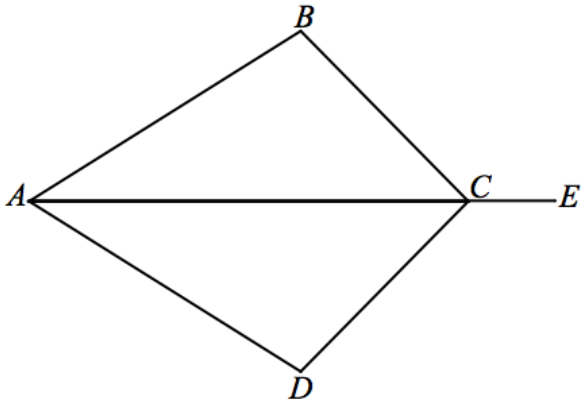
Prove that △RSU ≅ △RST or explain why you cannot.



I know that . . .	because . . .

☐ (4) ☐ Given: $\overline{AE}$ bisects ∠BCD, $\overline{BC} \cong \overline{DC}$.

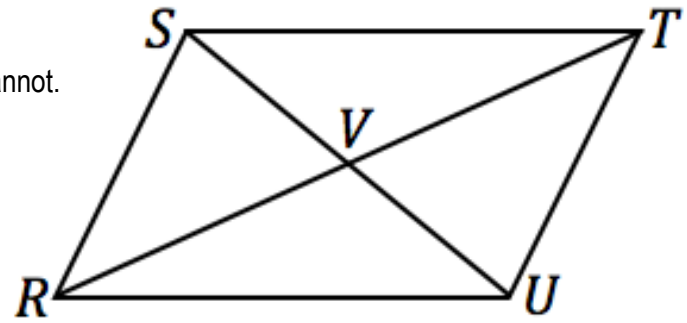
Prove that △CAB ≅ △CAD or explain why you cannot.



I know that . . .	because . . .

☐ (5) ☐ Given: $\overline{SU}$ and $\overline{RT}$ bisect each other.

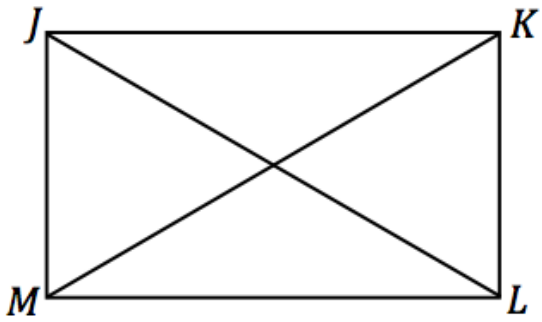
Prove that △ SVR ≅ △UVT or explain why you cannot.



I know that . . .	because . . .

☐ (6) ☐ Given: $\overline{KL} \perp \overline{LM}$, $\overline{JM} \perp \overline{LM}$, and $\overline{JM} \cong \overline{KL}$

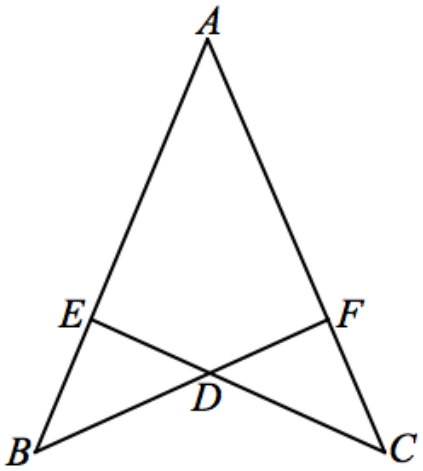
Prove that △JML ≅ △KLM or explain why you cannot.



I know that . . .	because . . .

☐ (7) ☐ Given: $\overline{BF} \perp \overline{AC}$, $\overline{CE} \perp \overline{AB}$

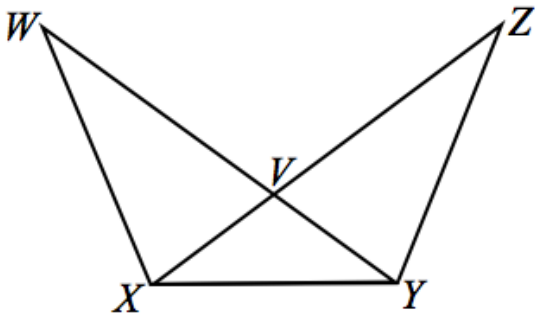
Prove that △BED ≅ △CFD or explain why you cannot.



I know that . . .	because . . .

☐ (8) ☐ Given: ∠VXY ≅ ∠VYX.

Prove that △VXW ≅ △VYZ or explain why you cannot.



I know that . . .	because . . .

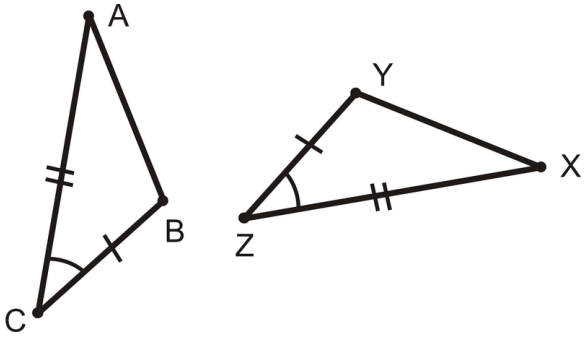
☐ (9) **Exit Ticket**

ON THE LAST PAGE

☐ (10) **Homework**

☐ (1) Given the diagram at right

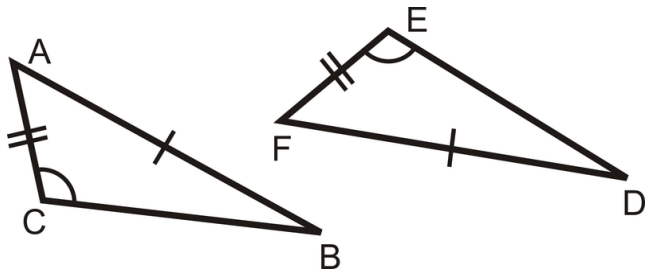
PROVE: △ABC ≅ △XYZ



I know that . . .	**because . . .**

☐ (2) Given the diagram at right

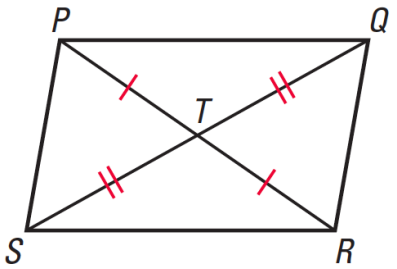
PROVE: △ABC ≅ △FDE



I know that . . .	**because . . .**

☐(10) ☐(3) **GIVEN** ▶ $\overline{PT} \cong \overline{RT}$, $\overline{QT} \cong \overline{ST}$

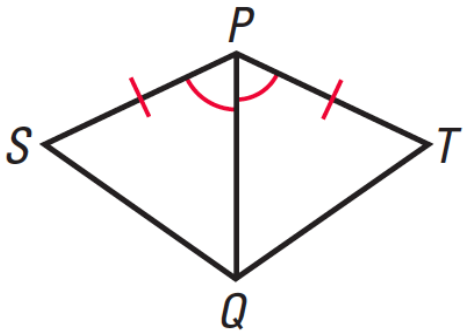
PROVE ▶ $\triangle PQT \cong \triangle RST$



I know that . . .	because . . .

☐(4) **GIVEN** ▶ $\overrightarrow{PQ}$ bisects $\angle SPT$, $\overline{SP} \cong \overline{TP}$

PROVE ▶ $\triangle SPQ \cong \triangle TPQ$



I know that . . .	because . . .

Exit Ticket **Name**_____ **Date** _____ _____ **Per**_ _____ **4.3R**

(1) The LO (Learning Outcomes) are written below your name on the front of this packet. Demonstrate your achievement of these outcomes by doing the following:

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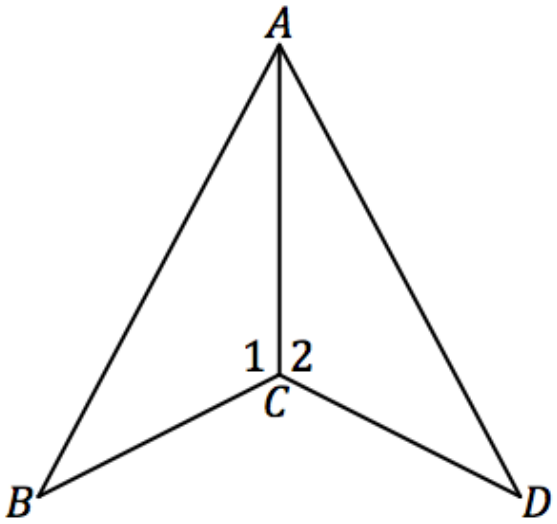
☐ Given: $\angle 1 \cong \angle 2$, $\overline{BC} \cong \overline{DC}$

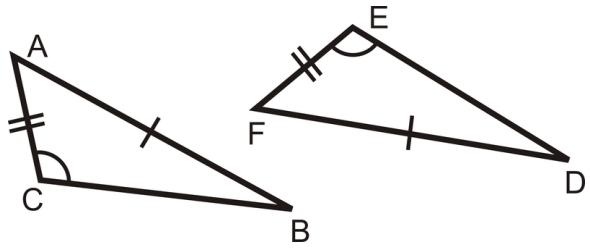
Prove that $\triangle ABC \cong \triangle ADC$ or explain why you cannot.



DO NOW **Name**_____ **Date** _____ **Per**_____ **4.3R**

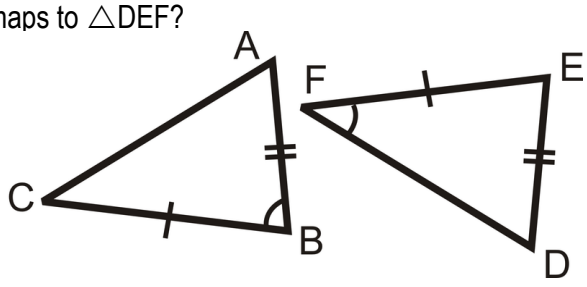
(1a) Can we use the SAS congruence shortcut to show that △ABC maps to △FDE?

Explain.



(1b) Can we use the SAS congruence shortcut to show that △ABC maps to △DEF?

Explain.



(2) Which two images below are identical?