Name _____ Class _____ Date _____

Practice

Form G

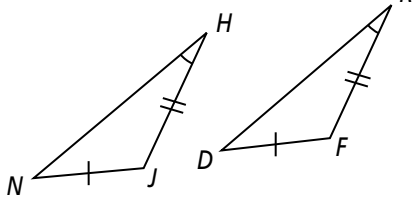
Triangle Congruence by SSS and SAS

Draw $\triangle MGT$. Use the triangle to answer the questions below.

1. What angle is included between $\overline{GM}$ and $\overline{MT}$?
2. Which sides include $\angle T$?
3. What angle is included between $\overline{GT}$ and $\overline{MG}$?

Would you use SSS or SAS to prove the triangles congruent? If there is not enough information to prove the triangles congruent by SSS or SAS, write *not enough information.* Explain your answer.

4.



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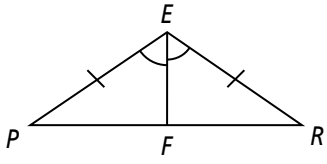

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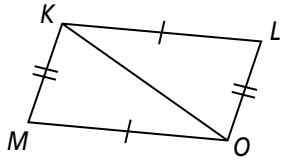

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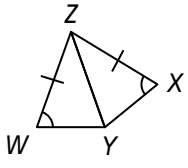

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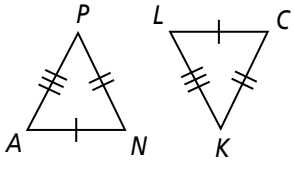

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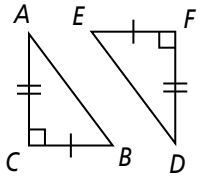

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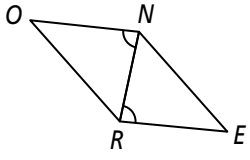

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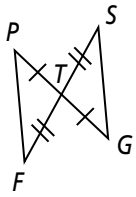

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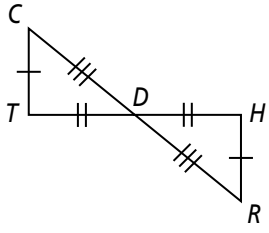


Practice (continued) *Form G*

Triangle Congruence by SSS and SAS

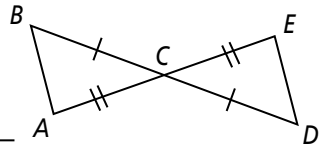
13. Draw a Diagram A student draws $\triangle ABC$ and $\triangle QRS$. The following sides and angles are congruent:

$\overline{AC} \cong \overline{QS}$ $\overline{AB} \cong \overline{QR}$ $\angle B \cong \angle R$

Based on this, can the student use either SSS or SAS to prove that $\triangle ABC \cong \triangle QRS$? If the answer is no, explain what additional information the student needs. Use a sketch to help explain your answer.

14. Given: $\overline{BC} \cong \overline{DC}$, $\overline{AC} \cong \overline{EC}$

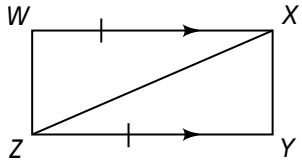
Prove: $\triangle ABC \cong \triangle EDC$



Statements	Reasons

15. Given: $\overline{WX} \parallel \overline{YZ}$, $\overline{WX} \cong \overline{YZ}$

Prove: $\triangle WXZ \cong \triangle YZX$



16. Error Analysis $\triangle FGH$ and $\triangle PQR$ are both equilateral triangles. Your friend says this means they are congruent by the SSS Postulate. Is your friend correct? Explain.

17. A student is gluing same-sized toothpicks together to make triangles. She plans to use these triangles to make a model of a bridge. Will all the triangles be congruent? Explain your answer.