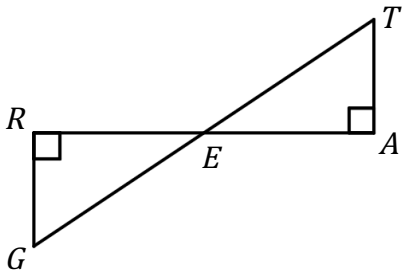
Name _____ Date_____

Triangles – Part 1
Triangle Congruence – ASA and AAS – Part 2
Independent Practice

1. Complete the two-column proof by filling in statements for the given reasons.

Given: $\angle R$ and $\angle A$ are right angles.
$\overline{RA}$ bisects $\overline{GT}$.
Prove: $\triangle GER \cong \triangle TEA$



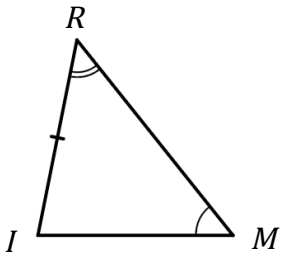
Statements	Reasons
1.	**1.** Given
2.	**2.** All right angles are congruent
3.	**3.** Vertical angles are congruent
4.	**4.** Given
5.	**5.** Definition of bisector
6.	**6.** ASA congruence theorem

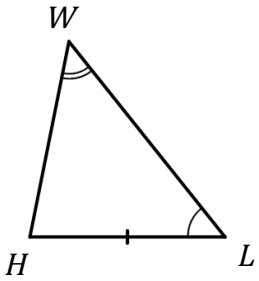
2. Consider triangle ΔNYM.

Part A: Which side is included between $\angle N$ and $\angle M$?

Part B: $\overline{YM}$ is between which angles?

3. Consider the statement, $\Delta RIM \cong \Delta WHL$ for the figure on the right.

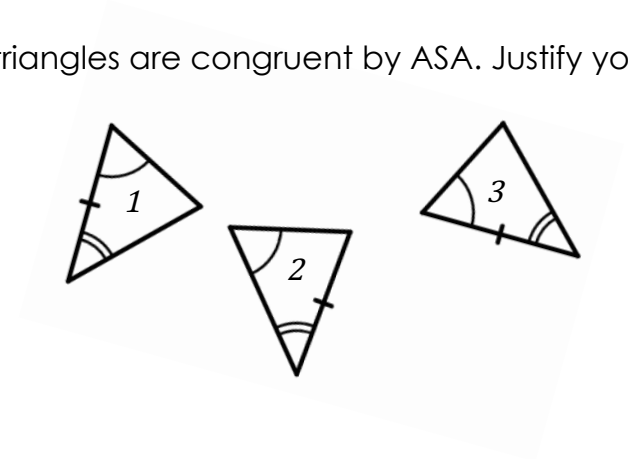




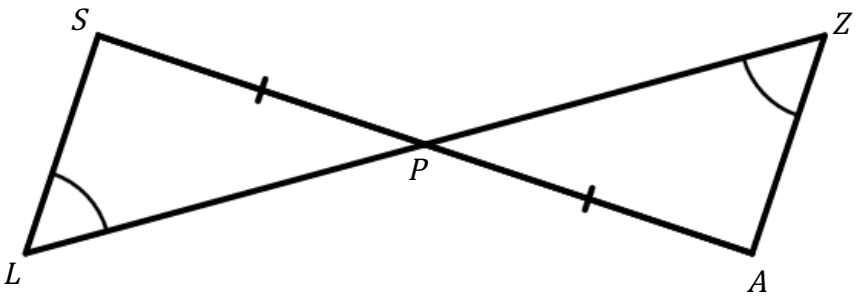
Which of the following statements represents the supports the statement above?

Ⓐ Yes, the triangles are congruent by ASA.
Ⓑ No $\overline{RI}$ and $\overline{HL}$ are not corresponding sides.
Ⓒ Yes, the triangles are congruent by AAS.
Ⓓ No, $\angle B$ and $\angle U$ are not corresponding angles.

4. Determine which two triangles are congruent by ASA. Justify your answer.

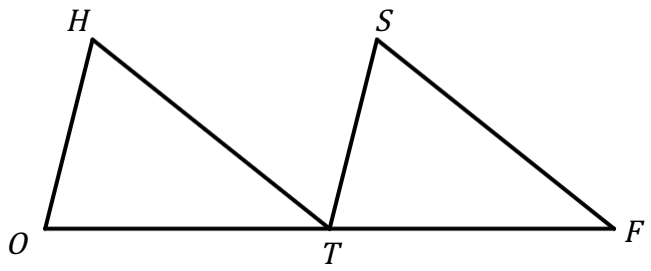


5. Determine if $\Delta SLP \cong \Delta ZAP$ are congruent. Justify your answer.



6. Complete the reasons for the statements below on the two-column proof below. (Hint: make markings on the triangles)

Given: $\overline{HT} \parallel \overline{SF}$, $\angle H \cong \angle S$ and $\overline{HT} \cong \overline{SF}$
Prove: $\Delta HOT \cong \Delta STF$



Statements	Reasons
1. $\overline{HT} \parallel \overline{SF}$, $\angle H \cong \angle S$ and $\overline{HT} \cong \overline{SF}$	**1.**
2. $\angle F \cong \angle HTO$	**2.**
3. $\Delta HOT \cong \Delta STF$	**3.**