Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Geometry Period \_\_\_\_\_\_\_

Chapter 2: Reasoning and Proof Performance Task

**Task 1**

All of the following questions in Task 1 concern the following sentence:

**A linear pair is a set of angles that add up to 180 degrees.**

1. Explain why the sentence above is not a good definition.
2. Rewrite the statement as a conditional statement. Is the conditional a true statement?
3. Write the converse of the conditional statement. Is the converse a true statement?
4. Rewrite the conditional statement so that it is true and its converse is true.

**Task 2**

1. Write a good definition for a rectangle. (Note: This will not have **if** and **then** in it.)
2. Write a conditional statement for your definition. Is the conditional statement true?
3. Write a converse for the statement above. Is the converse statement true?
4. Write the definition as a biconditional.

**Task 3**



**a.** Describe a two pairs of congruent angles formed by

intersecting lines in the diagram at the

right. Justify how you know they are congruent.

**Congruent Angles (Use symbols!) Reason**

1. 1.
2. **2.**

**b.** Find the actual numeric measures of two angles in the diagram whose measure is not

labeled. Explain how you determined the measurements by including REASONS.