

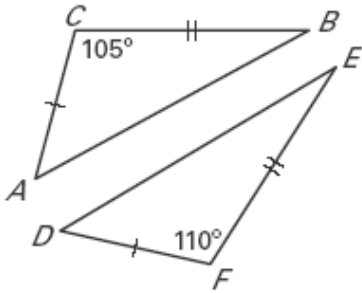
Name _____

Date _____

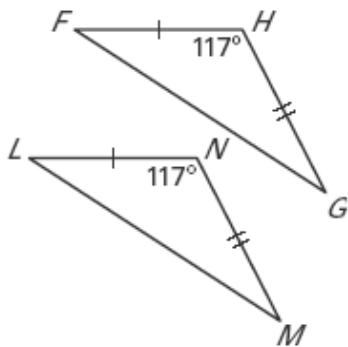
Assignment 47 LESSON 5.6

Complete with $<$, $>$, or $=$.

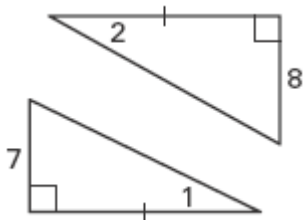
1. AB $?$ DE



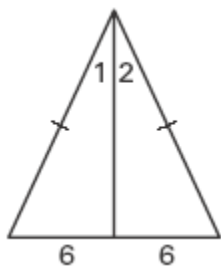
2. FG $?$ LM



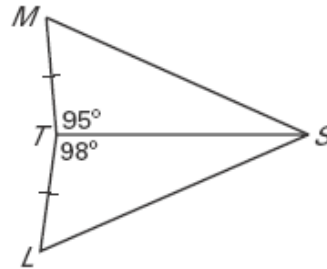
3. $m\angle 1$ $?$ $m\angle 2$



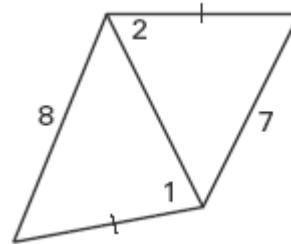
4. $m\angle 1$ $?$ $m\angle 2$



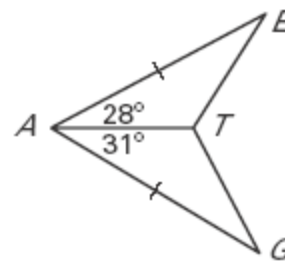
5. MS $?$ LS



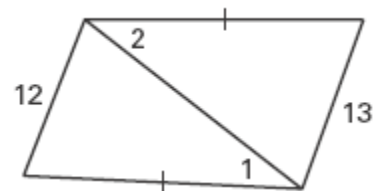
6. $m\angle 1$ $?$ $m\angle 2$



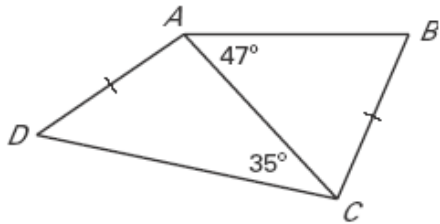
7. ET $?$ GT



8. $m\angle 1$ $?$ $m\angle 2$



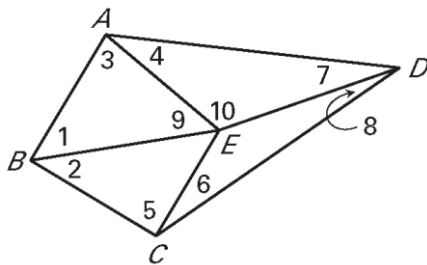
9. **Error Analysis** Explain why the student's reasoning is not correct.



By the Hinge Theorem, $AB > DC$.

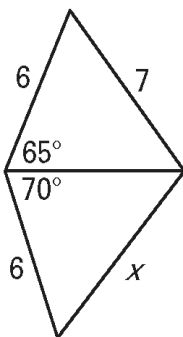
Match the conclusion on the right with the given information. Explain your reasoning.

10. $AB = BC, m\angle 1 > m\angle 2$ **A.** $m\angle 7 > m\angle 8$
 11. $AE > EC, AD = CD$ **B.** $AD > AB$
 12. $m\angle 9 < m\angle 10, BE = ED$ **C.** $m\angle 3 + m\angle 4 = m\angle 5 + m\angle 6$
 13. $AB = BC, AD = CD$ **D.** $AE > EC$

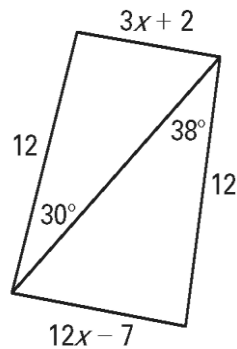


Use the Hinge Theorem or its converse and properties of triangles to write and solve an inequality to describe a restriction on the value of x .

14.



15.



16. **Shopping** You and a friend are going shopping. You leave school and drive 10 miles due west on 26th Street. You then drive 7 miles NW on Raspberry Street to the grocery store. Your friend leaves school and drives 10 miles due east on 26th Street. He then drives 7 miles SE on Cascade Street to the movie store. Each of you has driven 17 miles. Which of you is farthest from your school?