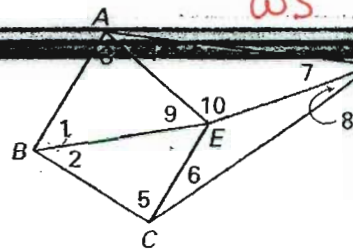


Match the conclusion on the right with the given information.

Explain your reasoning.

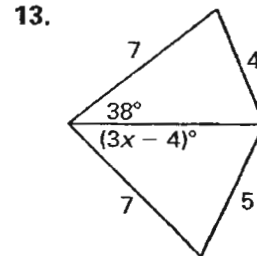
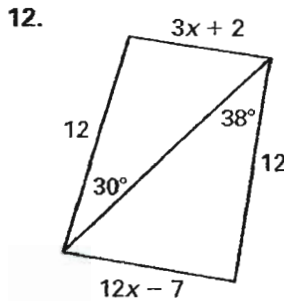
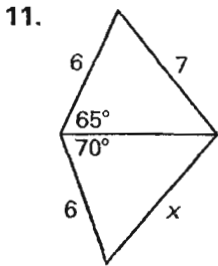
7. $AB = BC, \angle 1 > m\angle 2$ A. $m\angle 7 > m\angle 8$
 8. $AE > EC, AD = CD$ B. $AD > AB$
 $m\angle 9 < m\angle 10, BE = ED$ C. $m\angle 3 + m\angle 4 = m\angle 5 + m\angle 6$
 9. $AB = BC, AD = CD$ D. $AE > EC$



WS 30

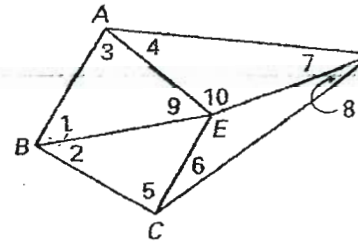
Triangle Inequalities

Use an inequality to describe a restriction on the value of x as determined by the Hinge Theorem or its converse.

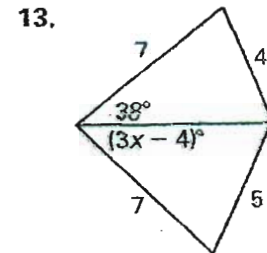
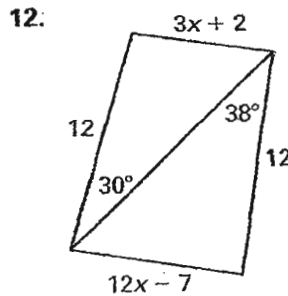
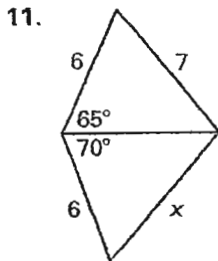


Match the conclusion on the right with the given information. Explain your reasoning.

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

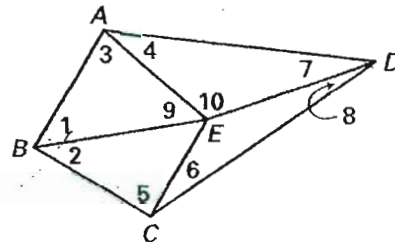


Use an inequality to describe a restriction on the value of x as determined by the Hinge Theorem or its converse.

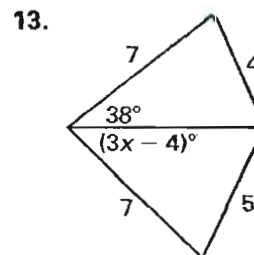
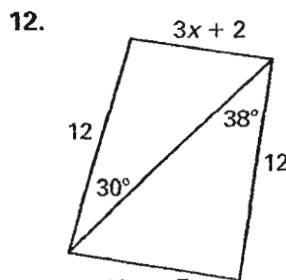
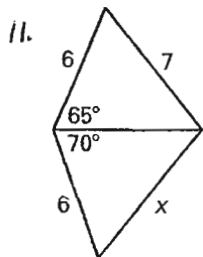


Match the conclusion on the right with the given information. Explain your reasoning.

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

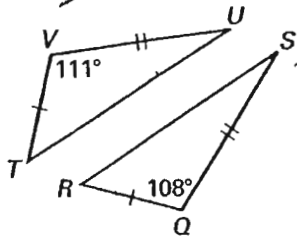


Use an inequality to describe a restriction on the value of x as determined by the Hinge Theorem or its converse.

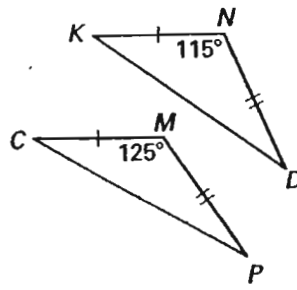


Complete with $<$, $>$, or $=$.

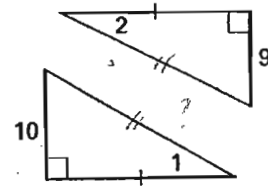
1. $TU \overset{>}{?} RS$



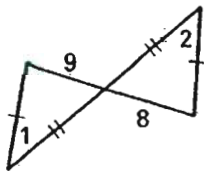
2. $KD \overset{<}{?} CP$



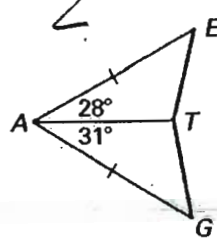
3. $m\angle 1 \overset{>}{?} m\angle 2$



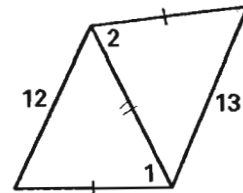
4. $m\angle 1 \overset{>}{?} m\angle 2$



5. $ET \overset{<}{?} GT$

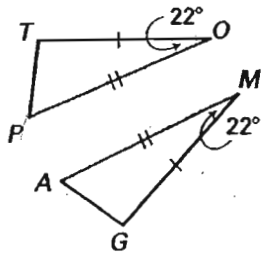


6. $m\angle 1 \overset{<}{?} m\angle 2$

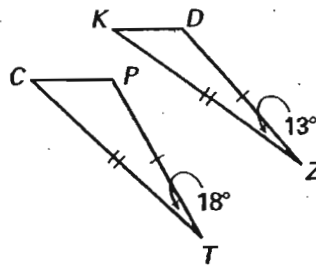


Complete with $<$, $>$, or $=$.

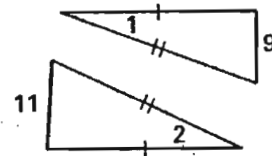
1. $TP \overset{=}{?} AG$



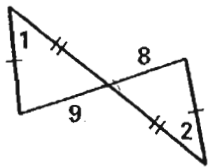
2. $KD \overset{<}{?} CP$



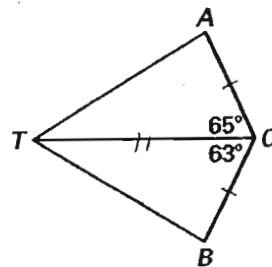
3. $m\angle 1 \overset{<}{?} m\angle 2$



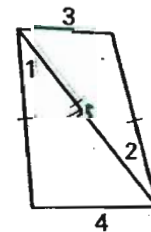
4. $m\angle 1 \overset{>}{?} m\angle 2$



5. $AT \overset{>}{?} BT$



6. $m\angle 1 \overset{>}{?} m\angle 2$



Match the conclusion on the right with the given information.

- ① $AF = AB, m\angle 1 > m\angle 2$ E
- ② $AF \cong FE, m\angle 11 > m\angle 12$ A
- ③ $m\angle 7 < m\angle 8, FD = BD$ B
- ④ $AF = AB, FD = DB$ C
- ⑤ $FD = DB,$
 $m\angle 9 + m\angle 8 > m\angle 7 + m\angle 6$ F
- ⑥ $AD = DC, m\angle 6 < m\angle 7$ D

- A. $ED > AD$
- B. $AF > AB$
- C. $m\angle 12 = m\angle 3$
- D. $AB > BC$
- E. $FD > BD$
- F. $AE > AC$

