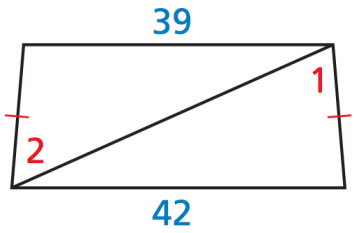
Name:_____Date:_____Per:_____

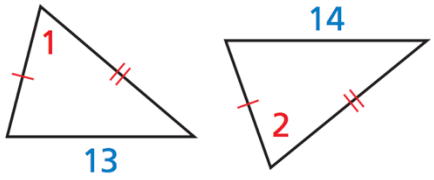
6.6 Inequalities in Two Triangles

Complete the statement with <, >, or =. Explain your reasoning.

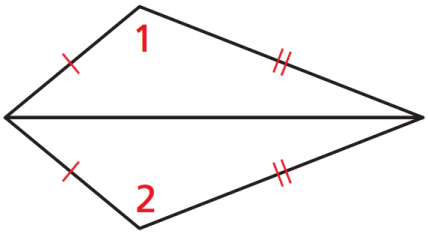
1. $m\angle 1$ _____ $m\angle 2$



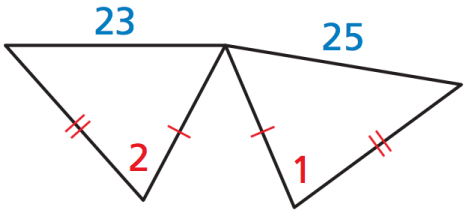
2. $m\angle 1$ _____ $m\angle 2$



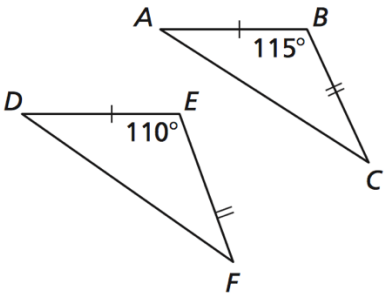
3. $m\angle 1$ _____ $m\angle 2$



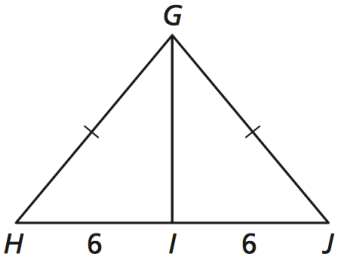
4. $m\angle 1$ _____ $m\angle 2$



5. AC _____ DF

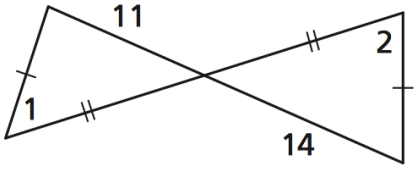


6. $m\angle HGI$ _____ $m\angle IGJ$

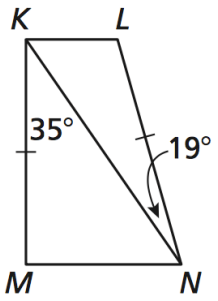


Name:_____Date:_____Per:_____

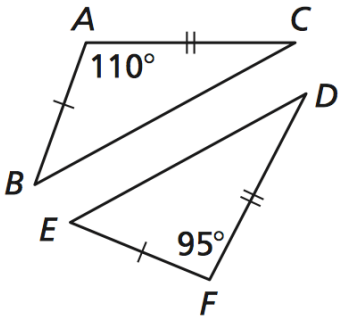
7. $m\angle 1$ _____ $m\angle 2$



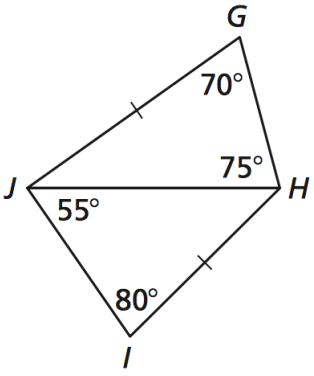
8. KL _____ MN



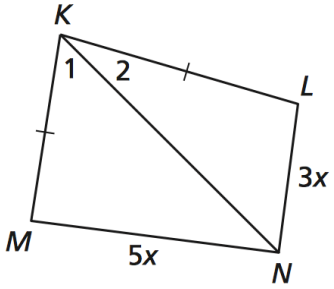
9. BC _____ DE



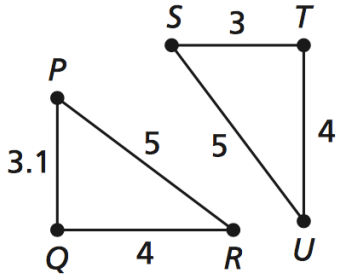
10. JI _____ GH



11. $m\angle 1$ _____ $m\angle 2$



12. $m\angle U$ _____ $m\angle R$



Name:_____Date:_____Per:_____

In exercise 13 and 14, you and your friend leave on different flights from the same airport. Determine which flight is farther from the airport. Explain your reasoning.

13. **Your flight:** Flies 100 miles due west, then turns 20 degrees toward north and flies 50 miles.

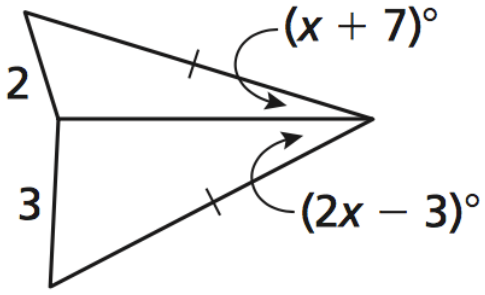
Friend's flight: Flies 100 miles due north, then turns 30 degrees toward east and flies 50 miles

14. **Your flight:** Flies 210 miles due south, then turns 70 degrees toward west and flies 80 miles.

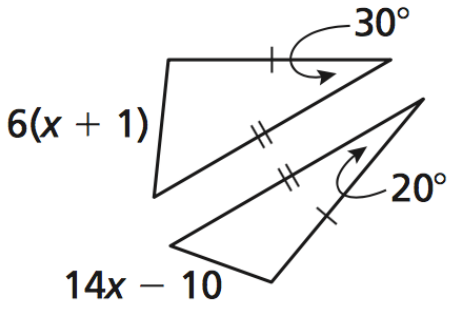
Friend's flight: Flies 80 miles due north, then turns 50 degrees toward east and flies 210 miles

Write and solve an inequality for the possible values of x.

15.

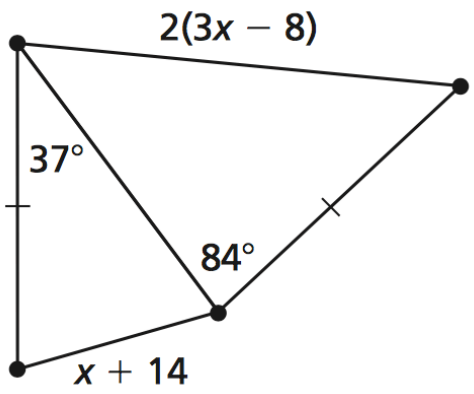


16.



Name:_____Date:_____Per:_____

17.



18.