NAME _____ DATE _____ PERIOD ____

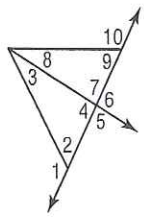
5-2 Practice

Inequalities and Triangles

Determine which angle has the greatest measure.

1. $\angle 1, \angle 3, \angle 4$

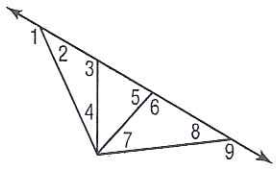
2. $\angle 4, \angle 8, \angle 9$



3. $\angle 2, \angle 3, \angle 7$

4. $\angle 7, \angle 8, \angle 10$

Use the Exterior Angle Inequality Theorem to list all angles that satisfy the stated condition.



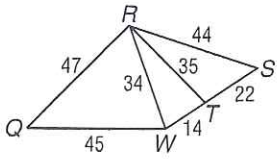
5. all angles whose measures are less than $m\angle 1$

6. all angles whose measures are less than $m\angle 3$

7. all angles whose measures are greater than $m\angle 7$

8. all angles whose measures are greater than $m\angle 2$

Determine the relationship between the measures of the given angles.



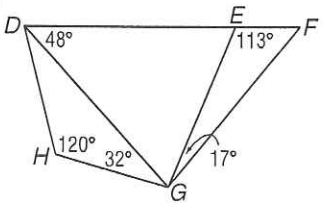
9. $m\angle QRW, m\angle RWQ$

10. $m\angle RTW, m\angle TWR$

11. $m\angle RST, m\angle TRS$

12. $m\angle WQR, m\angle QRW$

Determine the relationship between the lengths of the given sides.



13. $\overline{DH}, \overline{GH}$

14. $\overline{DE}, \overline{DG}$

15. $\overline{EG}, \overline{FG}$

16. $\overline{DE}, \overline{EG}$

17. SPORTS The figure shows the position of three trees on one part of a Frisbee™ course. At which tree position is the angle between the trees the greatest?