

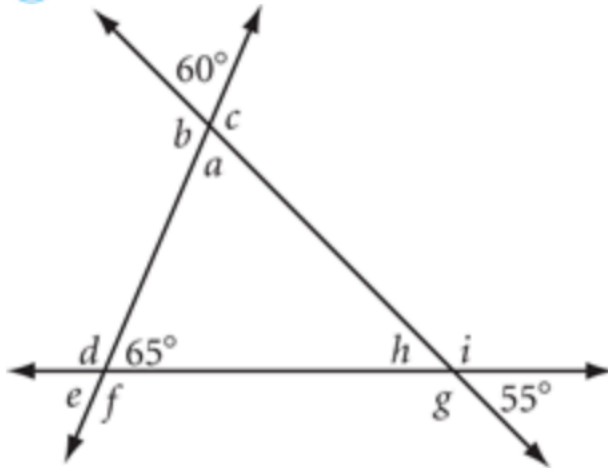
# Geometry Honors HW – Practice with Special Angle Relationships, due Fri 9/9

Please use the conjecture list I posted and your notes from class as a reference for this assignment.

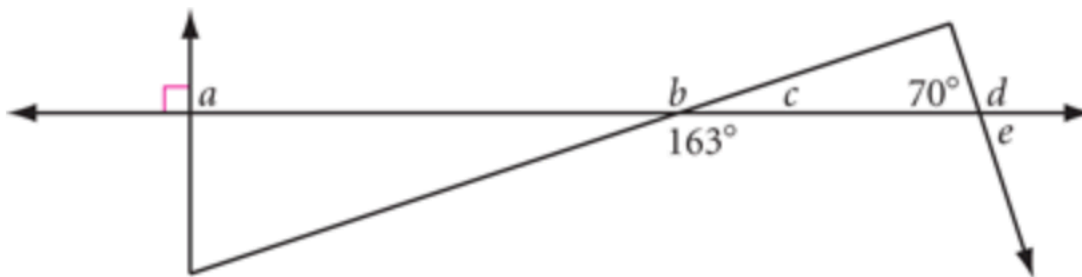
## Vertical Angles and Linear Pairs (Sect. 2.4)

Find the unknown angles.

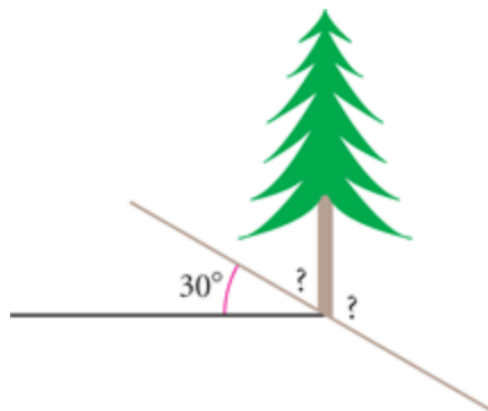
4. h



5.



8. A tree on a  $30^\circ$  slope grows straight up. What are the measures of the greatest and smallest angles the tree makes with the hill? Explain.



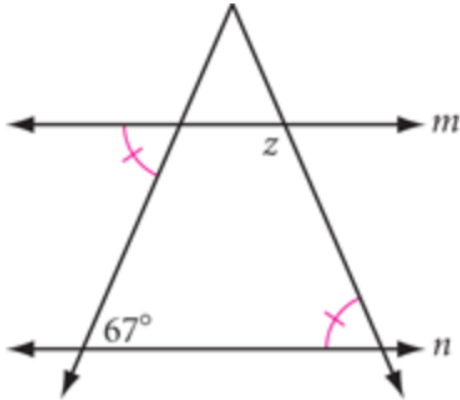
10. If two congruent angles are supplementary, what must be true of the two angles? Make a sketch, then complete the following conjecture: If two angles are both congruent and supplementary, then \_\_\_\_\_.

11. **Developing Proof:** Using algebra, write a deductive argument that explains why the conjecture from #10 is true.

Parallel Lines and Special Angles (Sect. 2.5)

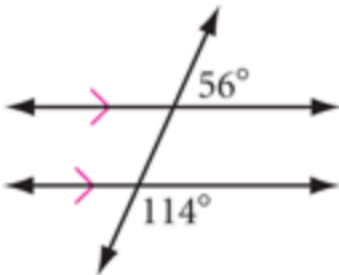
6.  $m \parallel n$

$z = \underline{\quad ? \quad}$  (h)

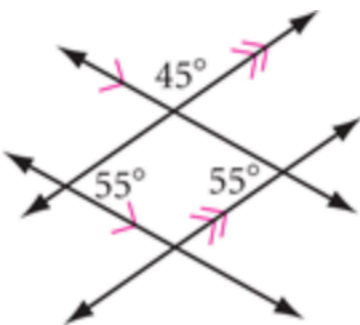


8. **Developing Proof:** Write a deductive argument explaining why the Alternate Exterior Angles Conjecture is true. Assume that the Vertical Angles Conjecture and Corresponding Angles Conjecture are both true.

9. **DEVELOPING PROOF** What's wrong with this picture?



10. **DEVELOPING PROOF** What's wrong with this picture?



14. If  $r \parallel s$ , find  $y$ .

