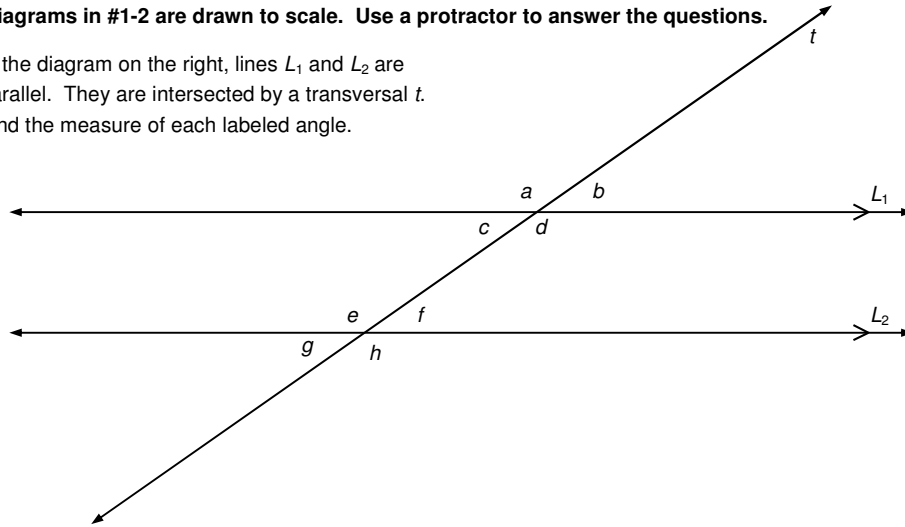


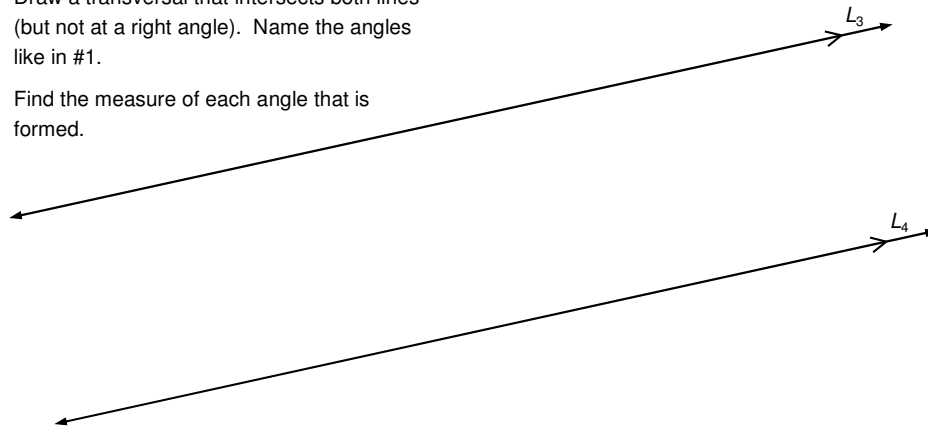
## Angles and Parallel Lines: Classwork

The diagrams in #1-2 are drawn to scale. Use a protractor to answer the questions.

1. In the diagram on the right, lines  $L_1$  and  $L_2$  are parallel. They are intersected by a transversal  $t$ . Find the measure of each labeled angle.

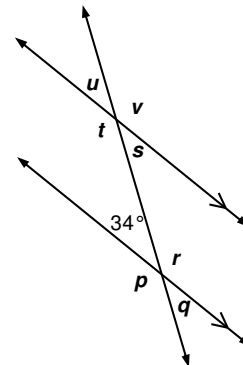
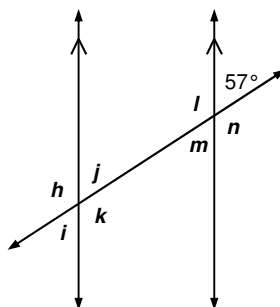
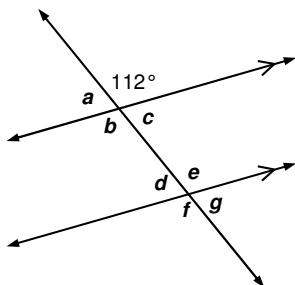


2. In the diagram on the right, lines  $L_3$  and  $L_4$  are also parallel.
- Draw a transversal that intersects both lines (but not at a right angle). Name the angles like in #1.
  - Find the measure of each angle that is formed.

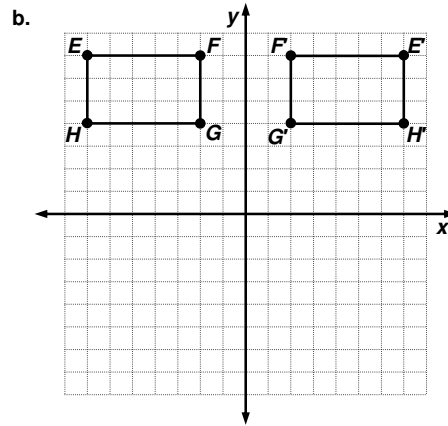
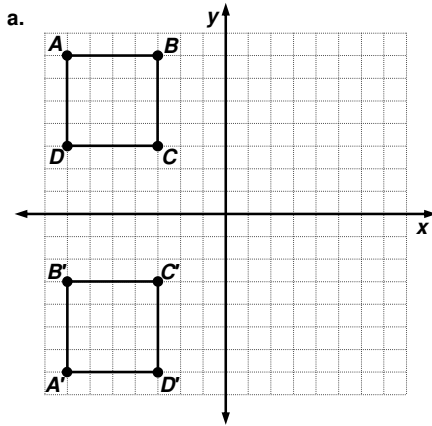


3. **Time to generalize!** Make several conjectures about pairs of equal angles formed when a transversal intersects two parallel lines.

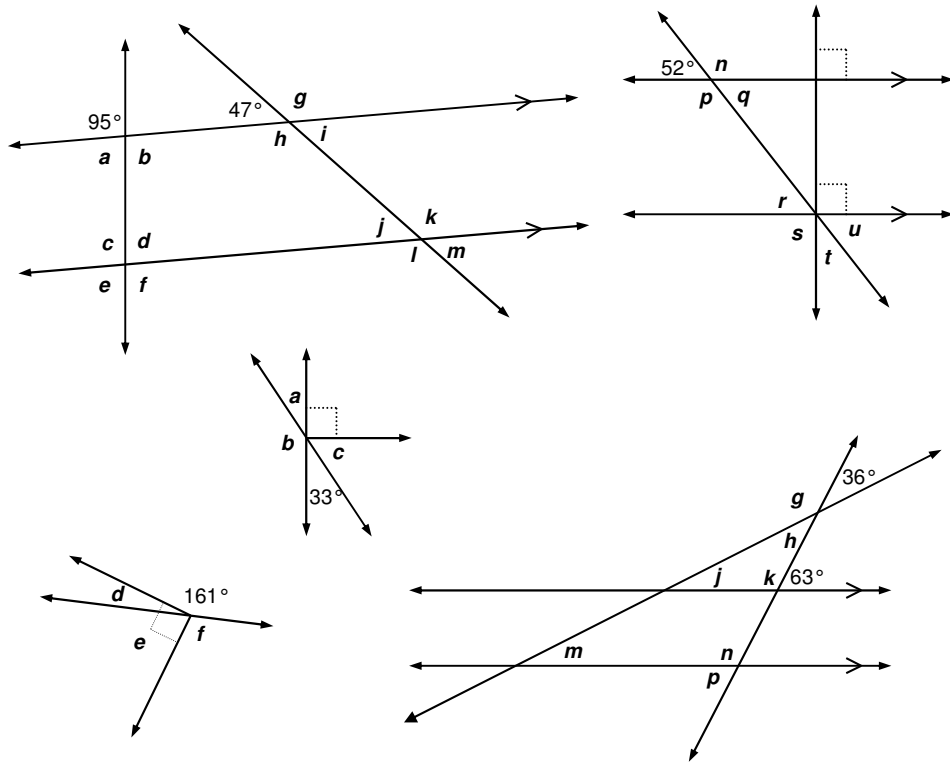
4. Based on what you discovered in #1-3, find the measures of the unknown angles without using a protractor.



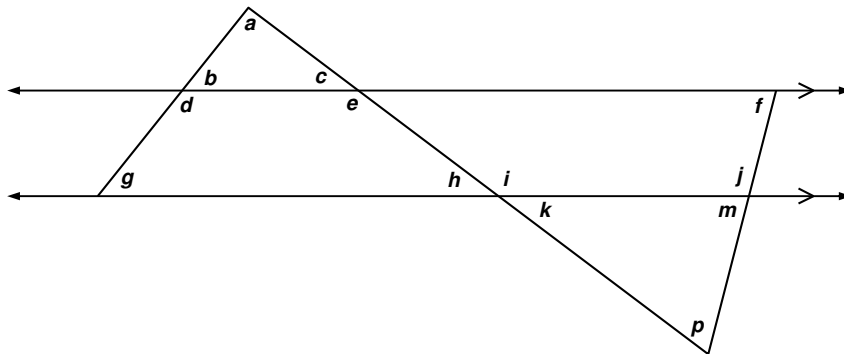
5. **Transformation Review.** Name and describe the transformation that was performed.



6. Find the measures of the unknown angles without using a protractor.

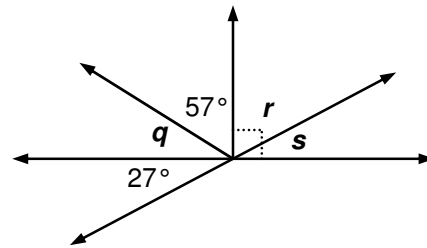
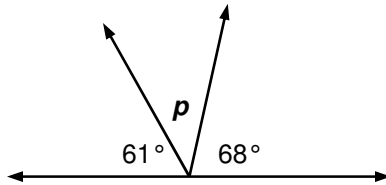
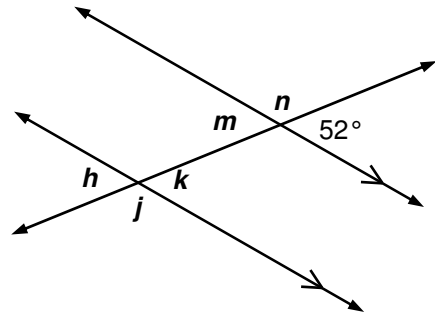
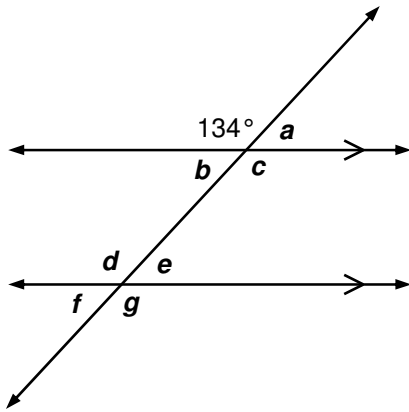


7. Find each unknown angle measure if  $m\angle a = 92^\circ$ ,  $m\angle h = 37^\circ$ , and  $m\angle p = 68^\circ$ .



## Angles and Parallel Lines: Homework

8. Find each unknown angle measure without using a protractor.



9. Transformation Review. Name and describe the transformation that was performed.

