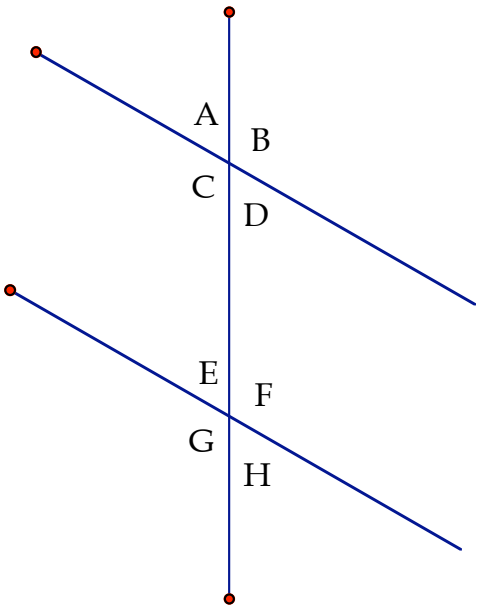
Chapter 2: Perpendicular / Parallel
Lesson 2-4: Angles and Parallel Lines
Homework

name _____
date _____
period ___

Refer to the figure and list all pairs:

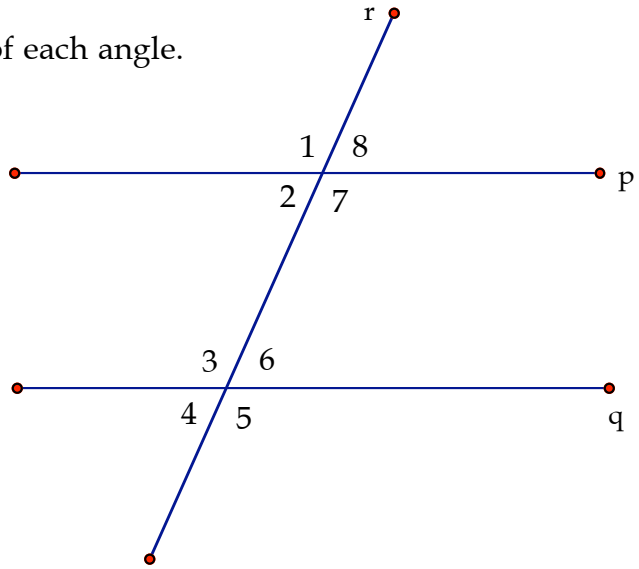


Corresponding Angles:
ie. ∠B and ∠F

Alternate Interior Angles:

Alternate Exterior Angles:

In the figure, p||q. Find the measure of each angle.

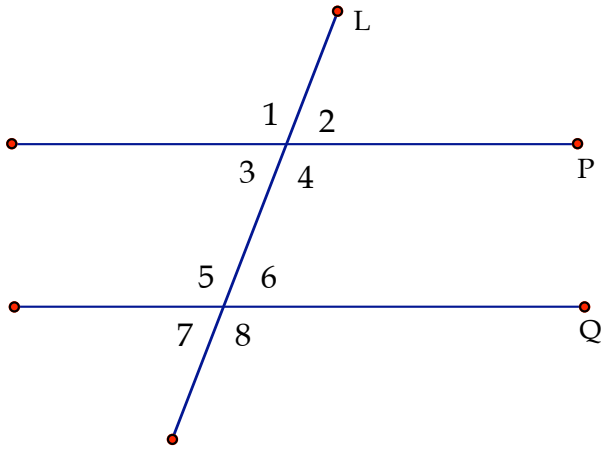


1. If m∠1 = 110, find m∠3.
2. If m∠2 = 85, find m∠3.
3. If m∠4 = 35, find m∠8.
4. If m∠6 = 70, find m∠2.
5. If m∠3 = 120, find m∠8.
6. If the m∠2 + m∠4 = 100 find m∠5.
7. If the m∠7 = 5x +10 and m∠5 = 40, find x.
8. If r⊥p, find m∠6.

Complete the following proof.

Given: - P||Q
- L is a transversal of P and Q

Prove: $\angle 1 \cong \angle 8, \angle 2 \cong \angle 7$



We are given that ___||___. If two parallel lines are cut by a transversal, corresponding angles are _____ . So, $\angle 1 \cong$ ___ and $\angle 2 \cong$ ___. $\angle 5 \cong \angle 8$ and $\angle 6 \cong$ ___ because vertical angles are congruent. Therefore, $\angle 1 \cong \angle 8$ and ___ $\cong$ ___ since congruence of angles is transitive.