For #5-8, name the transversal that forms each pair of angles then identify the relationship of the angle pair.

Name _____

5. ∠3 and ∠10 Transversal: _____

Relationship: _____

6. ∠2 and ∠12 Transversal: _____

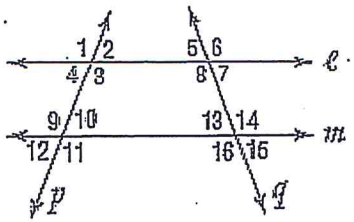
Relationship: _____

7. ∠8 and ∠14 Transversal: _____

Relationship: _____

8. ∠9 and ∠16 Transversal: _____

Relationship: _____



For #9-20, refer to the image at the right. Identify each pair of angles as *alternate interior, alternate exterior, corresponding, consecutive interior, vertical, linear pair* or *no relationship.*

9. ∠1 and ∠7

10. ∠2 and ∠10

11. ∠8 and ∠9

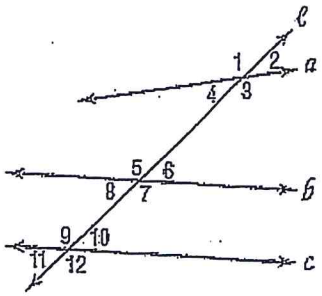
12. ∠1 and ∠12

13. ∠3 and ∠12

14. ∠4 and ∠10

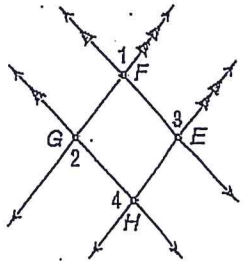
15. ∠5 and ∠7

16. ∠9 and ∠11



30. If m∠2 = 4x + 7 and m∠3 = 5x − 13, find m∠3. Show all work.

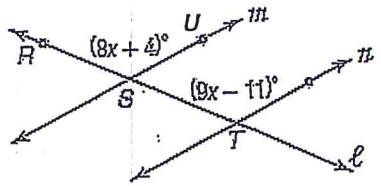
∠3 = _____



32. Find x and m∠RSU so that $m \parallel n$. Show all work.

x = _____

m∠RSU = _____



For #33-36, given the following information, determine which lines, if any, are parallel. State the Theorem that justifies your answer.

33. ∠16 ≅ ∠3 Parallel Lines: _____ & _____

Theorem: _____

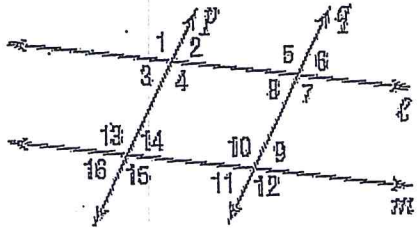
34. ∠4 ≅ ∠13 Parallel Lines: _____ & _____

Theorem: _____

35. m∠14 + m∠10 = 180 Parallel Lines: _____ & _____

Theorem: _____

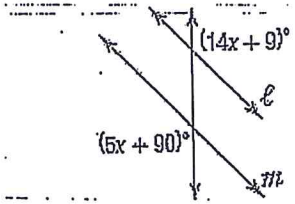
36. ∠1 ≅ ∠7 Parallel Lines: _____ & _____



For #37-38, find x so that $\ell \parallel m$. Identify the relationship between the angles. Show all work.

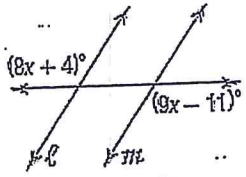
37. x = _____

Angle Relationship: _____



38. x = _____

Angle Relationship: _____



40. In the drawing, d || e and a || c. Find the values for v, w, x, y and z.