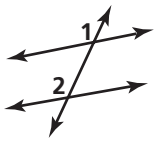
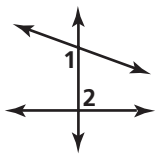
Name _____ Class _____ Date _____

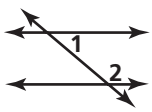
Practice 3-1

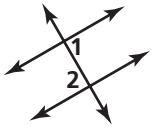
Properties of Parallel Lines

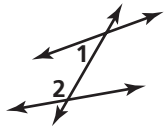
Classify each pair of angles as *alternate interior angles, same-side interior angles,* or *corresponding angles.*

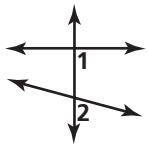
1. 

2. 

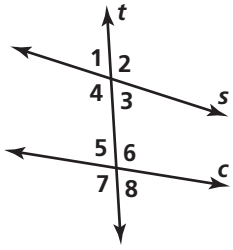
3. 

4. 

5. 

6. 

Use the figure on the right to answer Exercises 7–9.

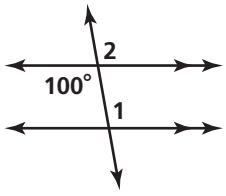


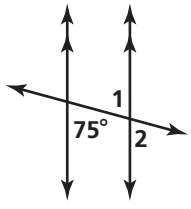
7. Name all pairs of corresponding angles formed by the transversal *t* and lines *s* and *c*.

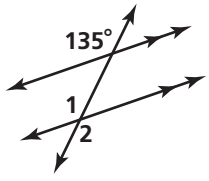
8. Name all pairs of alternate interior angles formed by the transversal *t* and lines *s* and *c*.

9. Name all pairs of same-side interior angles formed by the transversal *t* and lines *s* and *c*.

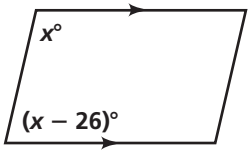
Find $m\angle 1$ and then $m\angle 2$. Justify each answer.

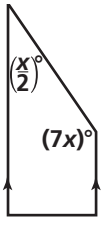
10. 

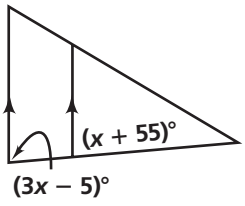
11. 

12. 

Algebra **Find the value of *x*. Then find the measure of each angle.**

13. 

14. 

15. 

16. Developing Proof Supply the missing reasons in this two-column proof.

Given: $a \parallel b$

Prove: $\angle 1 \cong \angle 3$

Statements	*Reasons*
1. $a \parallel b$	**1.** Given
2. $\angle 1 \cong \angle 2$	**a.** ?
3. $\angle 2 \cong \angle 3$	**b.** ?
4. $\angle 1 \cong \angle 3$	**c.** ?