Practice 3-1

Properties of Parallel Lines

Classify each pair of angles as *alternate interior angles, same-side interior angles,* or *corresponding angles.*
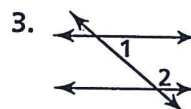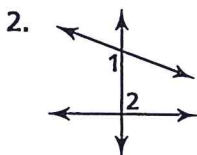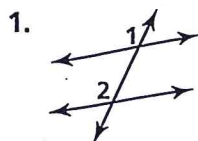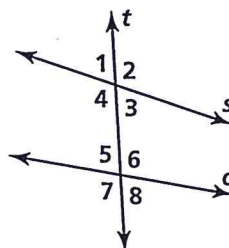
**1.**

2.

3.

4.

5.

6.
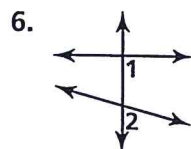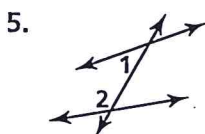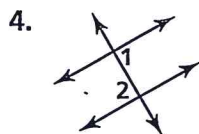
Use the figure on the right to answer Exercises 7–9.

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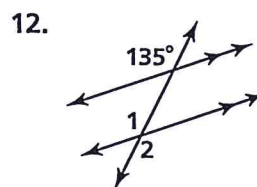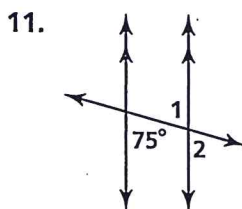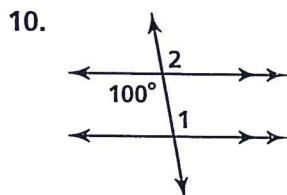
Algebra Find the value of *x*. Then find the measure of each angle.

13.

14.

15.
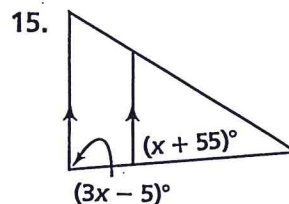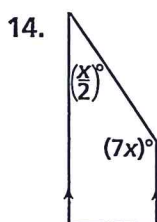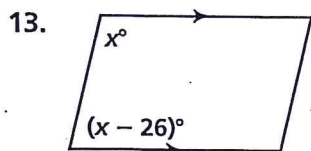
16. Developing Proof Supply the missing reasons in this two-column proof.

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. ?