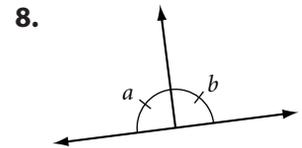
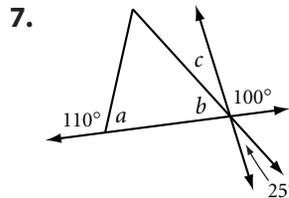
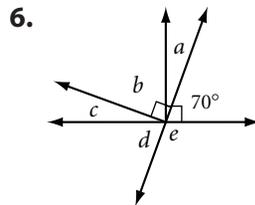
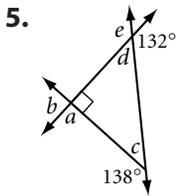
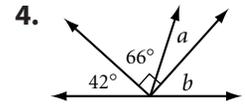
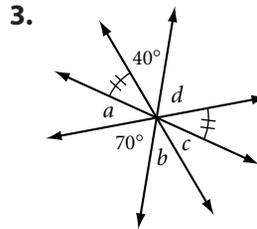
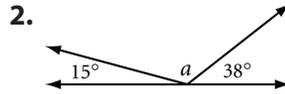
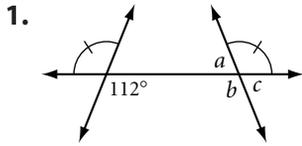


# Lesson 2.5 • Angle Relationships

Name \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_

For Exercises 1–8, find each lettered angle measure without using a protractor.



For Exercises 9–14, tell whether each statement is always (A), sometimes (S), or never (N) true.

9. \_\_\_\_\_ The sum of the measures of two acute angles equals the measure of an obtuse angle.
10. \_\_\_\_\_ If  $\angle XAY$  and  $\angle PAQ$  are vertical angles, then either  $X, A,$  and  $P$  or  $X, A,$  and  $Q$  are collinear.
11. \_\_\_\_\_ The sum of the measures of two obtuse angles equals the measure of an obtuse angle.
12. \_\_\_\_\_ The difference between the measures of the supplement and the complement of an angle is  $90^\circ$ .
13. \_\_\_\_\_ If two angles form a linear pair, then they are complementary.
14. \_\_\_\_\_ If a statement is true, then its converse is true.

For Exercises 15–19, fill in each blank to make a true statement.

15. If one angle of a linear pair is obtuse, then the other is \_\_\_\_\_.
16. If  $\angle A \cong \angle B$  and the supplement of  $\angle B$  has measure  $22^\circ$ , then  $m\angle A =$  \_\_\_\_\_.
17. If  $\angle P$  is a right angle and  $\angle P$  and  $\angle Q$  form a linear pair, then  $m\angle Q$  is \_\_\_\_\_.
18. If  $\angle S$  and  $\angle T$  are complementary and  $\angle T$  and  $\angle U$  are supplementary, then  $\angle U$  is a(n) \_\_\_\_\_ angle.
19. Switching the “if” and “then” parts of a statement changes the statement to its \_\_\_\_\_.

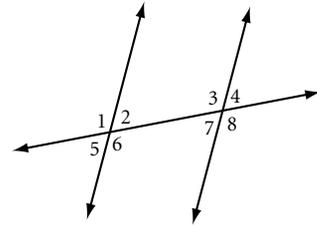
# Lesson 2.6 • Special Angles on Parallel Lines

Name \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_

For Exercises 1–11, use the figure at right.

For Exercises 1–5, find an example of each term.

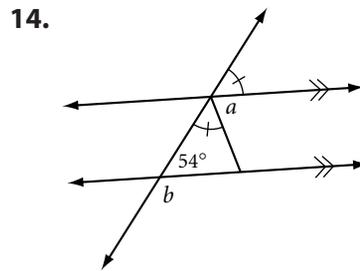
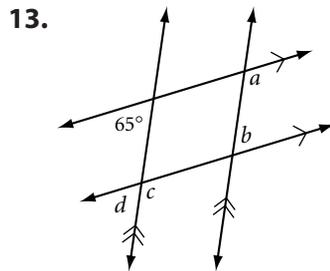
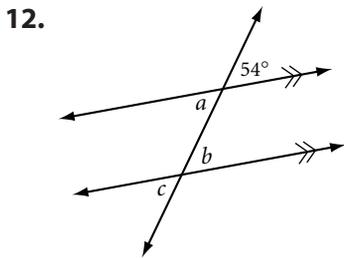
1. Corresponding angles
2. Alternate interior angles
3. Alternate exterior angles
4. Vertical angles
5. Linear pair of angles



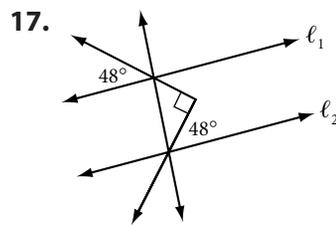
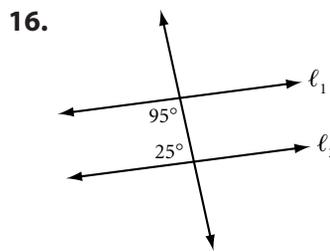
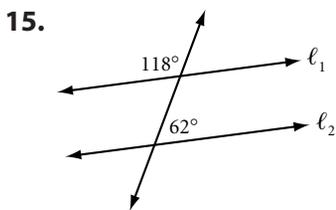
For Exercises 6–11, tell whether each statement is always (A), sometimes (S), or never (N) true.

6. \_\_\_\_\_  $\angle 1 \cong \angle 3$
7. \_\_\_\_\_  $\angle 3 \cong \angle 8$
8. \_\_\_\_\_  $\angle 2$  and  $\angle 6$  are supplementary.
9. \_\_\_\_\_  $\angle 7$  and  $\angle 8$  are supplementary.
10. \_\_\_\_\_  $m\angle 1 \neq m\angle 6$
11. \_\_\_\_\_  $m\angle 5 = m\angle 4$

For Exercises 12–14, use your conjectures to find each angle measure.



For Exercises 15–17, use your conjectures to determine whether or not  $\ell_1 \parallel \ell_2$ , and explain why. If not enough information is given, write “cannot be determined.”



18. Find each angle measure.

