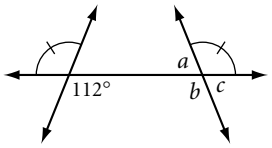
Lesson 2.5 • Angle Relationships

Name _____ **Period** _____ **Date** _____

For Exercises 1–6, find each lettered angle measure without using a protractor.

1.



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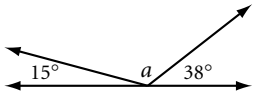

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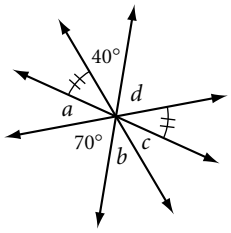

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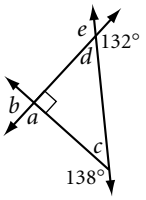

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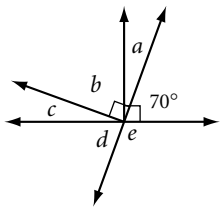

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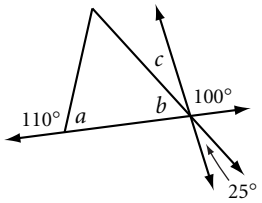


For Exercises 7–10, tell whether each statement is always (A), sometimes (S), or never (N) true.

7. _____ The sum of the measures of two acute angles equals the measure of an obtuse angle.

8. _____ If $\angle XAY$ and $\angle PAQ$ are vertical angles, then either X, A, and P or X, A, and Q are collinear.

9. _____ If two angles form a linear pair, then they are complementary.

10. _____ If a statement is true, then its converse is true.

For Exercises 11–15, fill in each blank to make a true statement.

11. If one angle of a linear pair is obtuse, then the other is _____.

12. If $\angle A \cong \angle B$ and the supplement of $\angle B$ has measure 22°, then $m\angle A =$ _____.

13. If $\angle P$ is a right angle and $\angle P$ and $\angle Q$ form a linear pair, then $m\angle Q$ is _____.

14. If $\angle S$ and $\angle T$ are complementary and $\angle T$ and $\angle U$ are supplementary, then $\angle U$ is a(n) _____ angle.

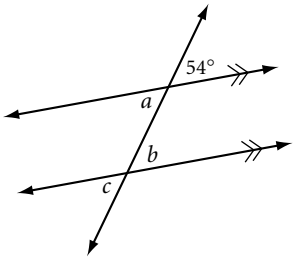
15. Switching the "if" and "then" parts of a statement changes the statement to its _____.

Lesson 2.6 • Special Angles on Parallel Lines

Name _____ **Period** _____ **Date** _____

For Exercises 1–3, use your conjectures to find each angle measure.

1.



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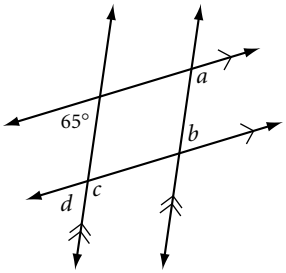

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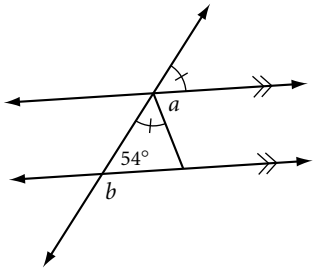
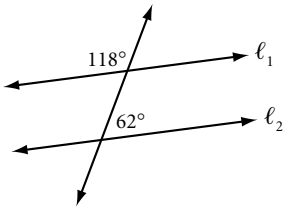


For Exercises 4–6, use your conjectures to determine whether $\ell_1 \parallel \ell_2$, and explain why. If not enough information is given, write "cannot be determined."

4.



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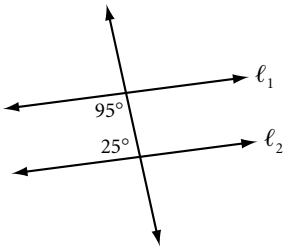

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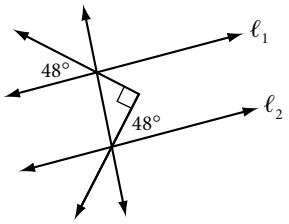
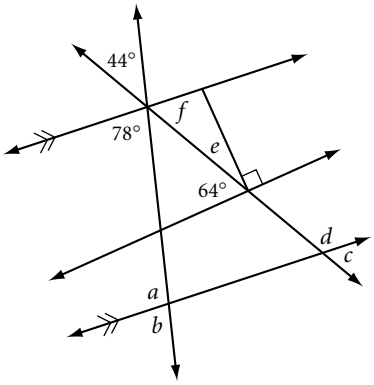
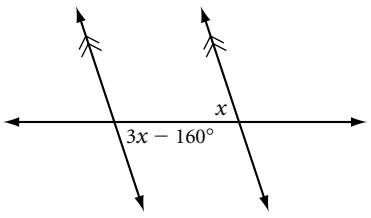


7. Find each angle measure.



8. Find x.



9. Find x and y.