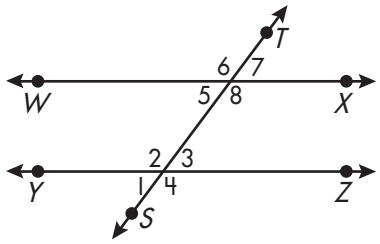
NAME _____

Lesson 5.6 Transversals and Calculating Angles

A **transversal** is a line that intersects two or more lines at different points. The angles that are formed are called **alternate interior angles** and **alternate exterior angles**. When a transversal intersects parallel lines, **corresponding angles** are formed.



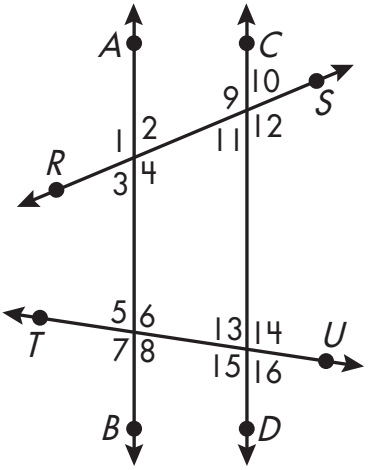
In the figure, $\overleftrightarrow{ST}$ is a transversal. $\overleftrightarrow{WX}$ and $\overleftrightarrow{YZ}$ are parallel.

The alternate interior angles are $\angle 2$ and $\angle 8$, and $\angle 3$ and $\angle 5$.

The alternate exterior angles are $\angle 4$ and $\angle 6$, and $\angle 1$ and $\angle 7$.

The corresponding angles are $\angle 1$ and $\angle 5$, $\angle 2$ and $\angle 6$, $\angle 3$ and $\angle 7$, and $\angle 4$ and $\angle 8$.

Use the figure to the right. Name the transversal that forms each pair of angles. Write whether the angles are *alternate interior, alternate exterior,* or *corresponding*.



1. $\angle 1$ and $\angle 9$ _____ _____
2. $\angle 5$ and $\angle 4$ _____ _____
3. $\angle 11$ and $\angle 3$ _____ _____
4. $\angle 5$ and $\angle 16$ _____ _____
5. $\angle 13$ and $\angle 8$ _____ _____
6. $\angle 15$ and $\angle 10$ _____ _____
7. $\angle 7$ and $\angle 14$ _____ _____
8. $\angle 8$ and $\angle 16$ _____ _____
9. $\angle 6$ and $\angle 3$ _____ _____
10. $\angle 12$ and $\angle 13$ _____ _____
11. $\angle 10$ and $\angle 2$ _____ _____
12. $\angle 5$ and $\angle 13$ _____ _____