

**Geometry Software Lesson Opener**

For use with pages 136–141

1. Draw  $\overleftrightarrow{AB}$ .
2. Draw  $\overrightarrow{CD}$  such that point  $C$  is on  $\overleftrightarrow{AB}$  and the two angles formed are congruent.
3. Measure the two angles formed by  $\overleftrightarrow{AB}$  and  $\overrightarrow{CD}$ . What type of angles are formed?
4. What is true about  $\overleftrightarrow{AB}$  and  $\overrightarrow{CD}$ ? How do you know?
5. Repeat Steps 1–4 for new line  $\overleftrightarrow{MN}$  and ray  $\overrightarrow{PQ}$ .
6. Repeat Steps 1–4 for new line  $\overleftrightarrow{HI}$  and ray  $\overrightarrow{JK}$ .
7. Use the results of Steps 1–6 to make a conjecture about two lines that intersect to form a linear pair of congruent angles.
8. Draw  $\overleftrightarrow{RS} \perp \overleftrightarrow{TU}$ .
9. Measure all four angles formed. What type of angles are formed?
10. Repeat Steps 8 and 9 for  $\overleftrightarrow{XY}$  and  $\overleftrightarrow{ZW}$ .
11. Repeat Steps 8 and 9 for  $\overleftrightarrow{LM}$  and  $\overleftrightarrow{NP}$ .
12. Use the results of Steps 8–11 to make a conjecture about the angles formed by two perpendicular lines.