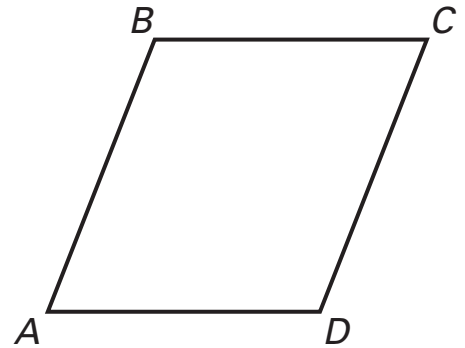


Activity Lesson Opener

For use with pages 338–346

SET UP: Work with a partner.

Is $ABCD$ a parallelogram? To decide, one partner draws and labels figure $ABCD$ with the given properties while the other partner tries to draw a figure $ABCD$ that has the given properties but is *not* a parallelogram. When $ABCD$ is not a parallelogram, include a sketch that supports your answer. Switch roles for each exercise.



1. $\overline{AB} \cong \overline{CD}$ and $\overline{BC} \cong \overline{AD}$
2. \overline{BD} and \overline{AC} bisect each other.
3. \overline{BD} and \overline{AC} are angle bisectors.
4. $\overline{AB} \parallel \overline{CD}$ and $\overline{BC} \cong \overline{AD}$
5. $\overline{BC} \cong \overline{AD}$ and $\overline{BC} \parallel \overline{AD}$
6. $\angle A \cong \angle C$ and $\angle B \cong \angle D$
7. $\angle A$ and $\angle B$ are supplementary; $\angle C$ and $\angle D$ are supplementary.
8. $\angle A$ is supplementary to $\angle B$ and $\angle D$.
9. $\overline{BD} \cong \overline{AC}$
10. $\overline{AB} \parallel \overline{CD}$ and $\overline{BC} \parallel \overline{AD}$