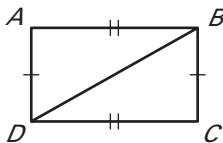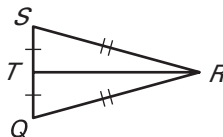### LESSON 4.3 Practice B
For use with pages 233–239
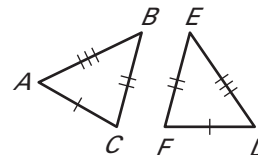
Decide whether the congruence statement is true. *Explain* **your reasoning.**

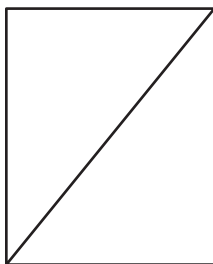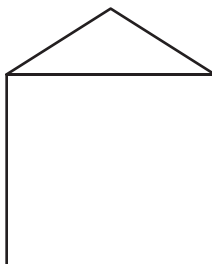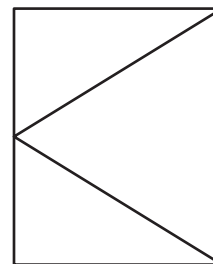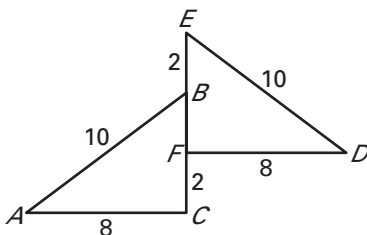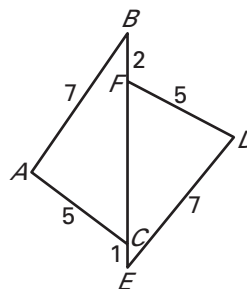**1.** $\triangle ABD \cong \triangle CDB$

2. $\triangle RST \cong \triangle RQT$

3. $\triangle ABC \cong \triangle DEF$

Use the given coordinates to determine if $\triangle ABC \cong \triangle DEF$.

4. $A(1, 2), B(4, -3), C(2, 5), D(4, 7), E(7, 2), F(5, 10)$

5. $A(1, 1), B(4, 0), C(7, 5), D(4, -5), E(6, -6), F(9, -1)$

6. $A(2, -2), B(5, 1), C(4, 8), D(7, 5), E(10, 8), F(9, 13)$

7. $A(-3, 0), B(6, 2), C(-1, 9), D(4, -10), E(13, -8), F(6, -1)$

Decide whether the figure is stable. *Explain* **your reasoning.**

8.

9.

10.

Determine whether $\triangle ABC \cong \triangle DEF$. *Explain* **your reasoning.**

11.

12.

LESSON 4.3 **Practice B** *continued*
For use with pages 233–239

13. Proof Complete the proof.

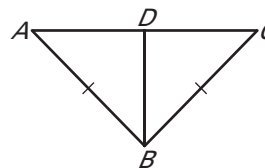**GIVEN:** $\overline{AB} \cong \overline{CD}$, $\overline{BC} \cong \overline{AD}$

PROVE: $\triangle ABC \cong \triangle CDA$
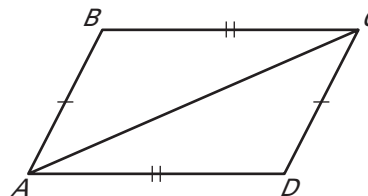
Statements	Reasons
1. $\overline{AB} \cong \overline{CD}$	**1.** __?__
2. $\overline{BC} \cong \overline{AD}$	**2.** __?__
3. $\overline{AC} \cong \overline{AC}$	**3.** __?__
4. $\triangle ABC \cong \triangle CDA$	**4.** __?__

14. Proof Complete the proof.

GIVEN: $\overline{AB} \cong \overline{CB}$, D is the midpoint of $\overline{AC}$.

PROVE: $\triangle ABD \cong \triangle CBD$

Statements	Reasons
1. $\overline{AB} \cong \overline{CB}$	**1.** __?__
2. D is the midpoint of $\overline{AC}$.	**2.** __?__
3. $\overline{AD} \cong \overline{CD}$	**3.** __?__
4. $\overline{BD} \cong \overline{BD}$	**4.** __?__
5. $\triangle ABD \cong \triangle CBD$	**5.** __?__

15. Picture Frame The backs of two different picture frames are shown below. Which picture frame is stable? *Explain* your reasoning.