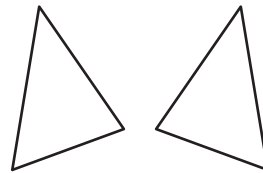


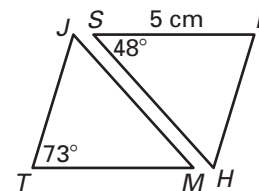
**LESSON 4.2 Practice**  
For use with pages 225–231

1. Copy the congruent triangles shown at the right. Then label the vertices of your triangles so that  $\triangle AMT \cong \triangle CDN$ . Identify all pairs of congruent corresponding angles and corresponding sides.

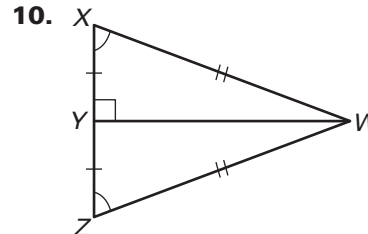
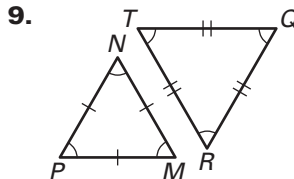
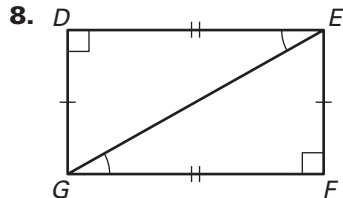


In the diagram,  $\triangle TJM \cong \triangle PHS$ . Complete the statement.

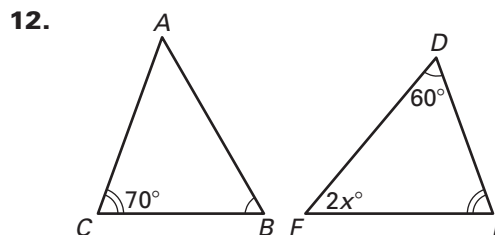
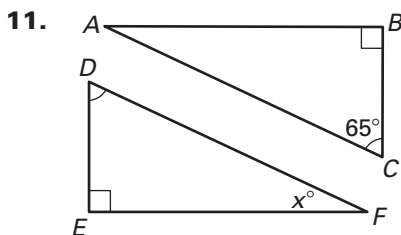
2.  $\angle P \cong$  ?  
3.  $\overline{JM} \cong$  ?  
4.  $m\angle M =$  ?  
5.  $m\angle P =$  ?  
6.  $MT =$  ?  
7.  $\triangle HPS \cong$  ?



Write a congruence statement for any figures that can be proved congruent. Explain your reasoning.



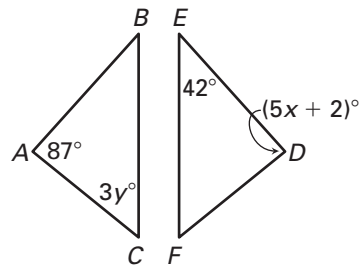
Find the value of  $x$ .



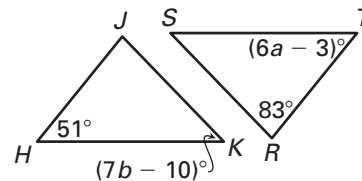
**LESSON**  
**4.2**
**Practice** *continued*  
 For use with pages 225–231

In Exercises 13 and 14, use the given information to find the indicated values.

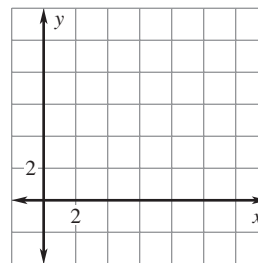
13. Given  $\triangle ABC \cong \triangle DEF$ , find the values of  $x$  and  $y$ .



14. Given  $\triangle HJK \cong \triangle TRS$ , find the values of  $a$  and  $b$ .



15. Graph the triangle with vertices  $A(1, 2)$ ,  $B(7, 2)$ , and  $C(5, 4)$ . Then graph a triangle congruent to  $\triangle ABC$ .

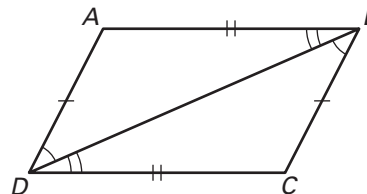


**LESSON**  
**4.2**
**Practice** *continued*  
*For use with pages 225–231*

**16. Proof** Complete the proof.

**GIVEN:**  $\angle ABD \cong \angle CDB$ ,  $\angle ADB \cong \angle CBD$ ,  
 $\overline{AD} \cong \overline{BC}$ ,  $\overline{AB} \cong \overline{DC}$

**PROVE:**  $\triangle ABD \cong \triangle CDB$



Statements	Reasons
1. $\angle ABD \cong \angle CDB$ , $\angle ADB \cong \angle CBD$ , $\overline{AD} \cong \overline{BC}$ , $\overline{AB} \cong \overline{DC}$	1. Given
2. $\overline{BD} \cong \overline{BD}$	2. ?
3. ?	3. Third Angles Theorem
4. $\triangle ABD \cong \triangle CDB$	4. ?

**17. Carpet Designs** A carpet is made of congruent triangles. One triangular shape is used to make all of the triangles in the design. Which property guarantees that all the triangles are congruent?