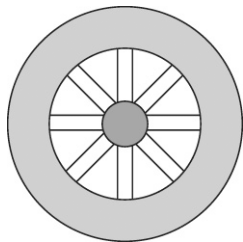


**LESSON**  
**8-9**

**Practice A**  
**Congruent Figures**

Are there any congruent figures in each picture? If there are, describe them.

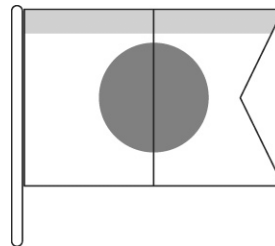
1.



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\_\_\_\_\_

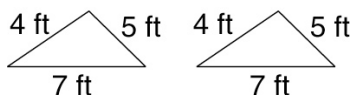
2.



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\_\_\_\_\_

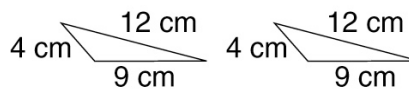
3.



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\_\_\_\_\_

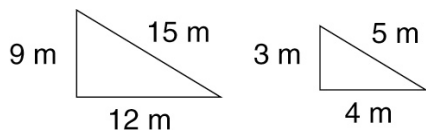
4.



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\_\_\_\_\_

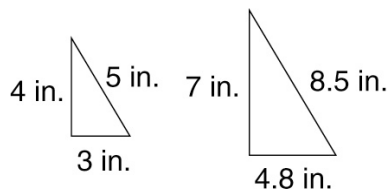
5.



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6.

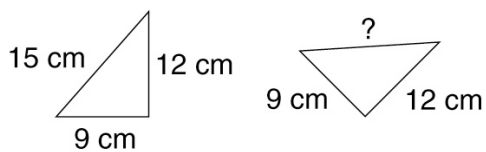


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Determine the unknown measure in each set of congruent polygons.

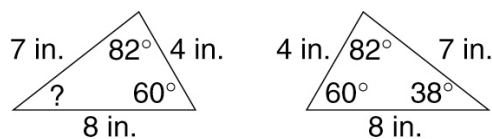
7.



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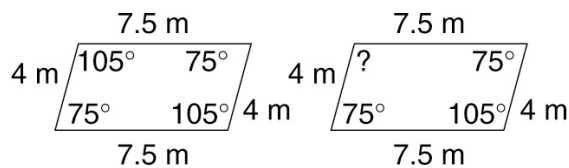
8.



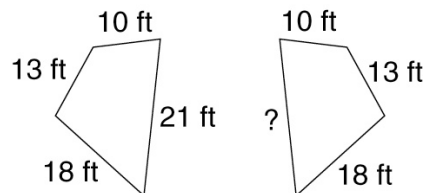
\_\_\_\_\_

\_\_\_\_\_

9.



10.



**LESSON**

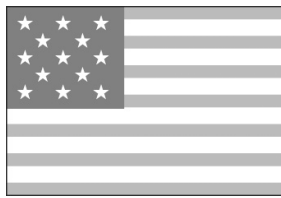
**Practice B**

**8-9**

**Congruent Figures**

Identify any congruent figures.

1.



\_\_\_\_\_

\_\_\_\_\_

2.

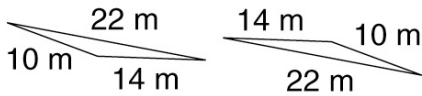


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Determine whether the triangles are congruent.

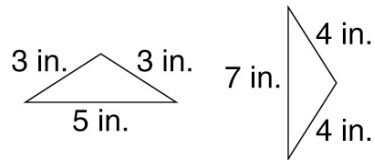
3.



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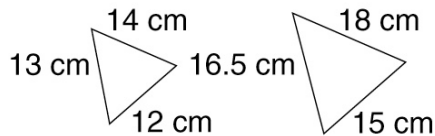
4.



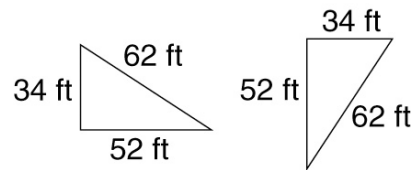
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5.

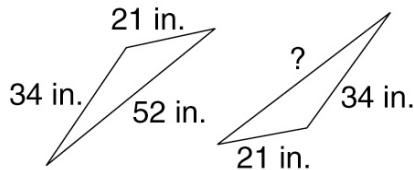


6.

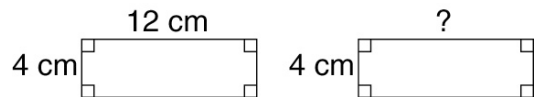


Determine the unknown measure or measures in each set of congruent polygons.

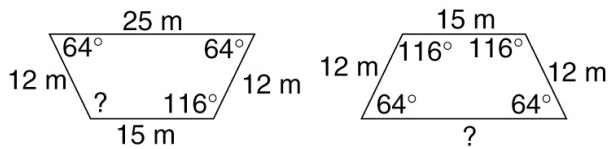
7.



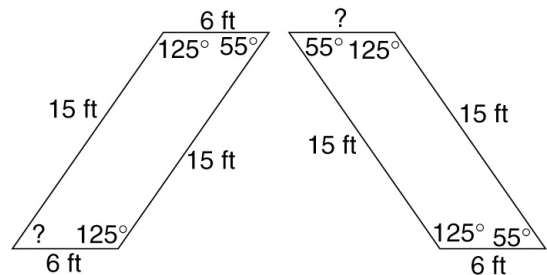
8.



9.



10.



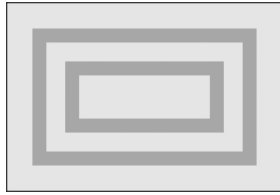
**LESSON**  
**8-9**

**Practice C**

***Congruent Figures***

Identify any congruent figures.

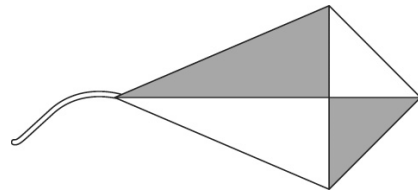
1.



\_\_\_\_\_

\_\_\_\_\_

2.



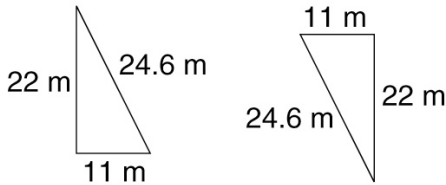
\_\_\_\_\_

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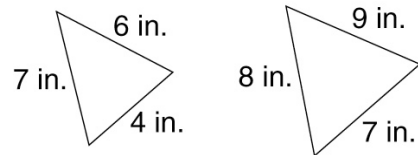
Determine whether the triangles are congruent.

3.



\_\_\_\_\_

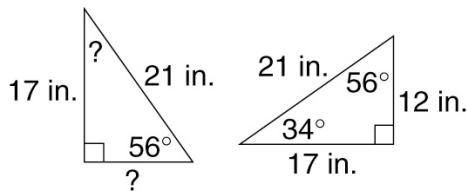
4.



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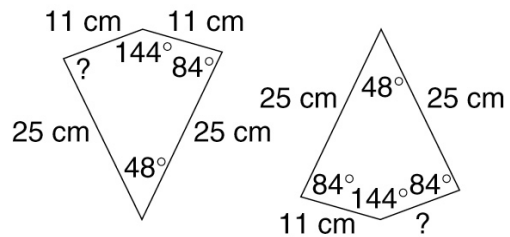
Determine the unknown measures in each set of congruent polygons.

5.



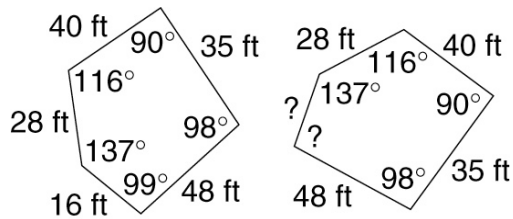
\_\_\_\_\_

6.



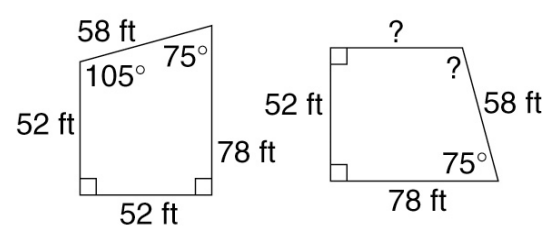
\_\_\_\_\_

7.



\_\_\_\_\_

8.



\_\_\_\_\_

9. Describe how to determine if two hexagons are congruent.

\_\_\_\_\_

\_\_\_\_\_

**LESSON**  
**8-9**

**Problem Solving**

***Congruent Figures***

Write the correct answer.

The table shows the dimensions of regulation NBA and NCAA basketball courts, which are rectangular in shape.

**Basketball Court and Lane Sizes**

	NBA	NCAA
<b>Court</b>	94 ft by 50 ft	94 ft by 50 ft
<b>Lane</b>	16 ft by 19 ft	12 ft by 19 ft

1. Is an NBA court congruent to an NCAA court? Why or why not?

\_\_\_\_\_

\_\_\_\_\_

2. If the lane on an NBA court is the same shape as the lane on an NCAA court, are they congruent? Explain.

\_\_\_\_\_

\_\_\_\_\_

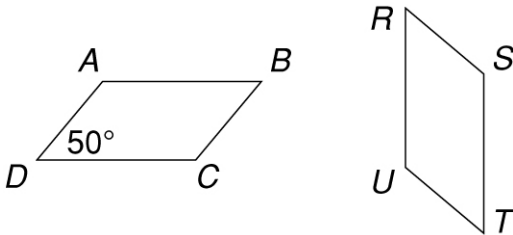
3. The lane on a WNBA court is 12 feet by 19 feet. If the lane is the same shape as that of the NBA lane, are they congruent? Why or why not?

\_\_\_\_\_

\_\_\_\_\_

Choose the letter for the best answer.

4. The parallelograms below are congruent. What is the measure of  $\angle U$ ?



- A  $50^\circ$                       C  $100^\circ$   
 B  $130^\circ$                     D  $260^\circ$
6. In  $\triangle ABC$ ,  $m\angle A = m\angle B$ , and  $m\angle C = 100^\circ$ . What are the measures of the angles in  $\triangle DEF$  if it is congruent to  $\triangle ABC$ ?
- A  $60^\circ, 60^\circ, 100^\circ$   
 B  $20^\circ, 60^\circ, 100^\circ$   
 C  $30^\circ, 60^\circ, 100^\circ$   
 D  $40^\circ, 40^\circ, 100^\circ$
5. The Mexican flag is a rectangle divided into three vertical stripes of identical measures. Which of the

following statements is true about the Mexican flag?

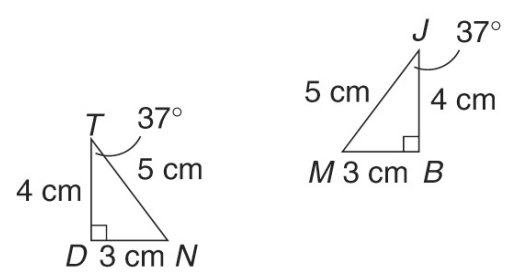
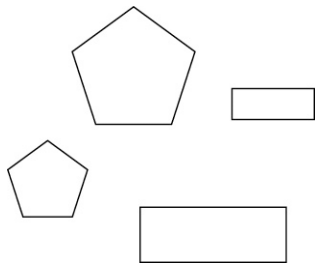
- F It has 3 congruent rectangles.  
 G It has 3 rectangles that are not congruent.  
 H It has 4 congruent rectangles.  
 J It has 4 rectangles and none are congruent.

7.  $\triangle JKL$  is congruent to  $\triangle RST$ .  $\angle L$  and  $\angle T$  are right angles. Which statement about the two triangles is *not* true?

- F  $m\angle K = m\angle S$   
 G  $\overline{JK} \cong \overline{RS}$   
 H  $m\angle J = m\angle L$   
 J  $m\angle R + m\angle S = 90^\circ$

**LESSON** **8-9** **Reading Strategies**  
**Graphic Organizer**

This chart helps you understand congruence.

<p><b>Definition</b></p> <p>Two figures that have exactly the same size and shape are congruent.</p>	<p><b>Facts</b></p> <ul style="list-style-type: none"> <li>• Corresponding sides are congruent.</li> <li>• Corresponding angles are congruent.</li> </ul>
<p><b>Congruence</b></p>	
<p><b>Examples</b></p> 	<p><b>Non-examples</b></p> 

Use the chart to answer each question.

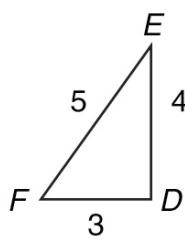
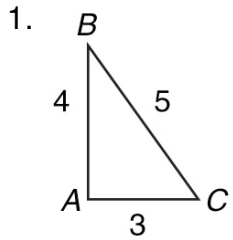
- How can you tell if two figures are congruent?  
 \_\_\_\_\_
- Are the rectangles congruent? Why or why not?  
 \_\_\_\_\_
- Compare the two triangles. Which side corresponds to  $\overline{TD}$ ?  
 \_\_\_\_\_
- How long are  $\overline{TD}$  and  $\overline{JB}$ ?  
 \_\_\_\_\_
- Which angle corresponds to angle  $D$ ?  
 \_\_\_\_\_
- Are the two triangles congruent? Explain why or why not.  
 \_\_\_\_\_

**LESSON**  
**8-9**

**Puzzles, Twisters & Teasers**

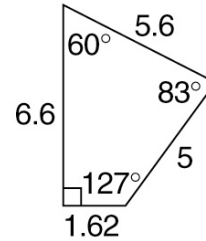
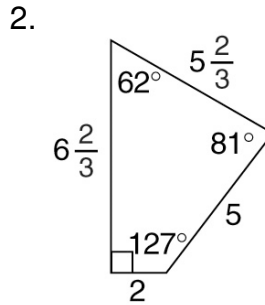
**Hit the Nail on the Head!**

Decide whether or not each pair of figures is congruent. Circle the letter above your answer. Unscramble the letters to solve the riddle.



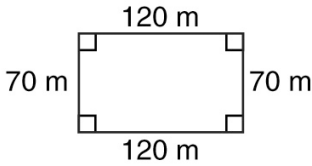
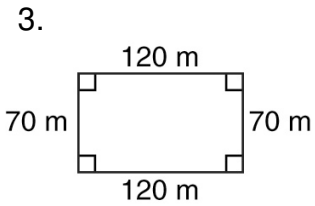
T  
congruent

K  
not congruent



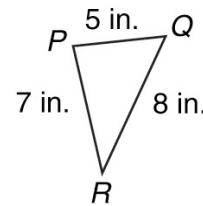
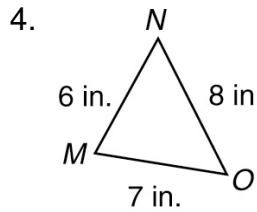
P  
congruent

H  
not congruent



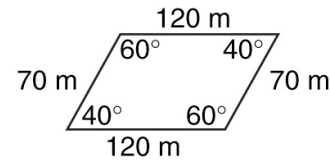
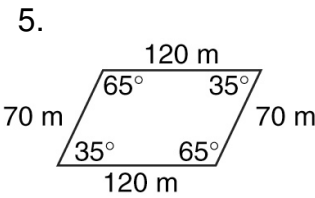
M  
congruent

R  
not congruent



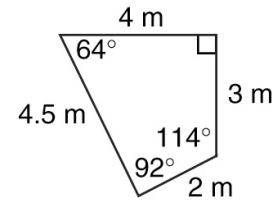
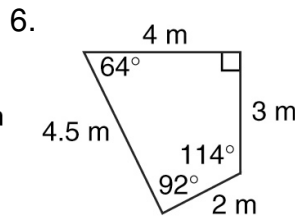
L  
congruent

A  
not congruent



U  
congruent

B  
not congruent



I  
congruent

W  
not congruent

**Which nail does a carpenter hate to hit?**

His \_\_\_\_\_ **U** \_\_\_\_\_ **N** \_\_\_\_\_ **L**

